

bscription REDUCED to TWO DOLLARS Per Annum in Advance.

ESTABLISHED IN 1840.

THE SOUTHERN PLANTER AND FARMER

DEVOTED TO

Agriculture, Horticulture, and the Mining, Mechanic and Household Arts.

Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and Pasturage are the two breasts of the State.—SULLY.

CH: B. WILLIAMS, - - - - - EDITOR AND PROPRIETOR.
WM. L. HILL, - - - - - GENERAL AGENT.

New Series. RICHMOND, VA., AUGUST, 1868. Vol. II.—No. 8.

CONTENTS:

AGRICULTURAL DEPARTMENT:

Wharn-Cliffe, Henderson county, N. C., with a Description of Twelve Other Surrounding Counties.....	449
Sheep Husbandry in New Zealand, by Mrs. Win. J. Brown.....	455
Changes in our System of Farming Recommended, Geo. C. Gilmer.....	457
when to Turn in Clover.....	459
The Whit-House—The Old Custis Family Seat—Illustrated.....	460
What Shall we Do? No. 4. Sheep Husbandry—concluded from page 399—By F. G. Ruffin.....	462
Nathaniel P. Atkinson's Letters, giving Over Fifty Years' Experience in Sheep Management.....	466
The Situation in Texas, by Thomas Aftleck.....	469
Reply to Dr. Atkinson on Corn Planting, by Rev. T. S. W. Mott.....	471
Proposed Physical Survey by Washington College.....	474
Physical Survey of Virginia by Virginia Military Institute.....	478
Washington County, Va.—Description of.....	481
Distemper in Cattle—Remedy and Prevention, by F. G. Ruffin.....	482
The Sources of our Prosperity.....	483
Phosphatic Beds near Charleston.....	485

HORTICULTURAL DEPARTMENT:

The Virginia Horticultural and Pomological Society—Col. John J. Werth's Essay on Grape Culture, the Policy and Economy of General Fruit Culture, &c.....	488
Editorial Correspondence.....	494
The Gardener's Monthly—Editor's Theory, that Evaporation is Excessive in Cold Weather, controverted, by A. Featherman.....	496
Cresylie Soap—Insect Destroyer, Deodorizer and Disinfectant.....	499

HOUSEHOLD DEPARTMENT:

Domestic Recipes, Tomato Wine, Bread, &c.....	500
---	-----

EDITORIAL DEPARTMENT:

Survey Board of Washington College—Proceedings of.....	502
Quantity of Seed Sown to an Acre.....	502
The Song of the Summer Cloud (poetry), by Rev. T. S. W. Mott.....	53
Immigration—Resolutions of Burkville Convention.....	514
Book Notices.....	505
Correspondence of Southern Planter and Farmer—Report of Department of Agriculture, Letters, &c.....	508
Agricultural Exhibitions during Autumn.....	512
Commercial Report.....	512

FERGUSON & RADY, Printers, 1328 Main Street.

NOAH WALKER & CO.

WHOLESALE AND RETAIL

CLOTHIERS

1315 Main Street,

RICHMOND, VA.

Chief House—Washington Building, 165 and 167, Baltimore St., Baltimore, Md.
Branch Houses—Petersburg, Va., Norfolk, Va., Washington, D. C. feb—ly

THE Southern Planter and Farmer,

DEVOTED TO

Agriculture, Horticulture, and the Mining, Mechanic, and Household Arts.

CH. B. WILLIAMS, Editor and Prop'r.

This valuable monthly contains 64 PAGES OF READING MATTER, and is furnished at the remarkably low price of

TWO DOLLARS PER ANNUM, Payable in Advance.

WM. L HILL, GEN'L AGENT, P O. Box 653.

DAVENPORT & CO.

OFFICE No. 1104 MAIN STREET, OVER NATIONAL EXCHANGE BANK,
GENERAL AGENTS IN VIRGINIA,

FOR THE

Liverpool and London and Globe Insurance Co.

GOLD CAPITAL \$16,000,000!

Will Insure on most favorable terms BUILDING or MERCANDISE in CITY or COUNTRY. All claims paid on proof of loss without abatement for interest. Will BUY and SELL STOCKS and BONDS and NEGOTIATE LOANS on favorable terms.

DAVENPORT & CO.

fe—

WEST & JOHNSTON

Have RESUMED BUSINESS in the NEW AND ELEGANT BUILDING
Just above the Post Office,

And offer for sale, as before and during the war, a large and varied stock of

BOOKS IN ALL DEPARTMENTS OF LITERATURE;

As also a well selected stock of

STATIONERY of Foreign and Domestic Manufacture,
Usually kept in a First-Class Establishment. A call from the Public is respectfully solicited.

BINDING and BLANK BOOKS executed to order.

Subscriptions received for the "PLANTER AND FARMER."

ORDERS promptly attended to. Address

WEST & JOHNSTON,

mh-

Booksellers and Stationers, two doors above P. O. RICHMOND, VA.

THE SOUTHERN PLANTER & FARMER,

DEVOTED TO

Agriculture, Horticulture and the Mining, Mechanic and Household Arts.

Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and Pasturage are the two breasts of the State.—SULLY.

CH: B. WILLIAMS, EDITOR AND PROPRIETOR.

New Series. RICHMOND, VA., AUGUST, 1868. Vol. II---No. 8.

Wharne Cliffe, Henderson County, N. C.

In the May number of the *Planter and Farmer*, Mr. Editor, you suggested articles descriptive of those farms and plantations the character of which might be of public interest. As "Wharne Cliffe" is thought by many to possess some very attractive features, I have concluded to give your readers a short description of it, with some account of its present mode of cultivation.

Before doing so, however, an introductory word as to the region may not be out of place. This section of North Carolina lies between the Blue Ridge on the east, and the Alleghany mountains on the west, embracing thirteen counties—Ashe, Watauga, Mitchell, Madison, Buncombe, Yancey, Henderson, Transylvania, Haywood, Jackson, Macon, Clay and Cherokee. The greater portion is very hilly and mountainous, but Buncombe, Henderson, Haywood and Transylvania are, for the most part, moderately undulating. The elevation of the whole region above the level of the sea will average three thousand feet—Wharne Cliffe farm being two thousand five hundred. This ascent from the seaboard is gradual until you reach the eastern base of the Blue Ridge, and then the acclivity is abrupt, and rises before you a huge mountain, that can only be ascended by the laborious effort of several miles skyward. From the summit of the Ridge to the base on the western side there is nothing more than the declivity of an ordinary hill. I am now speaking of the mountain gaps or passes, and not of the massive piles of granite that loom up into the clouds. I am simply trying to show how that

this whole region is a vast table land between the Blue Ridge and the Alleghany proper, elevated very high above similar tracts of country lying either to the east or to the west. For it is a fact not generally thought of, that the descent westward is almost as great as that eastward. The French Broad river rises in the southern extremity of the Blue Ridge in Transylvania county, not very far from the head waters of the Saluda and Savannah rivers, which empty their waters into the Atlantic. The French Broad river, however, flows to the northwest, and, after leaving Asheville, it tumbles over rocks for fifty miles, making one of the grandest, longest cascades in the world, affording water power enough to turn, if need be, all the spindles in the solar system.

The upper waters of the French Broad make an exquisite stream. The river flows calmly and placidly through rich valleys and broad, fertile bottoms. The farms in Transylvania, Henderson and part of Buncombe that lie on this stream are susceptible of a high degree of cultivation and fertility. Where lime is used, the field of corn has averaged, in a crop, seventy-five bushels to the acre. The grasses, rye and oats are grown with equal success. It is at the confluence of Cane creek (quite a large stream) and the French Broad where "Wharne Cliffe" is situated—a farm of about seven hundred and fifty acres, four hundred of which is bottom land. The tract fills up the angle formed by the creek and the river—lying, in plainer words, in the fork. The three hundred and fifty acres not bottom are chiefly hills, with crystal rivulets running down between either into creek or river from perennial springs. In these ravines you can multiply ice-ponds, build saw-mills, tanneries and dairies, or wash your flocks of sheep. These rills flow through the broad bottoms, that may be used either for surface irrigation of meadow land, or for washing out and keeping open the ditches of the low lands.

The chief productions of "Wharne Cliffe" are the grape, corn and rye. Tobacco and wheat, when well planted and sown, do well. But there can be no country superior to this for fruits. There is never a total failure of apples, and but rarely so of peaches and grapes. All kinds of fruits grow in this region in great perfection, and it is a source of constant grief to the proprietor of "Wharne Cliffe" that so few fruit trees are to be found on the estate. Extraordinary native vines burden the forest with their overarching luxuriance, and the vines near the ground are sometimes to be seen as thick in diameter as small trees. On the river bottom there is a heavy growth of cane lining the lagoons and the two water courses

that gives an abundance of green pasture to cattle through the winter.

The most remarkable feature of this farm consists in the abundance of its own fertilizers. A vein of limestone rock runs through the farm, dipping considerably beneath the surface, but the proximity to wood more than counterbalances the dip. The lagoons above mentioned are small bodies of water, covering each not over a half-acre, which are filled by freshets. The freshets carry into and deposit in them the richest elements of fertilization. These lagoons dry up in July, and for several months, or until a freshet refills them, thousands of cart loads of manure may be removed, and with the lime, what vast and rich beds of compost might be formed; or, it might be carted, and applied directly to the soil with the most satisfactory results. A distinguished agriculturist of the neighboring county applied simply muck, with a very small proportion of ashes, to an acre, mixed the muck thoroughly with the soil, and the yield that year was one hundred and forty-nine bushels of corn—next to the greatest yield ever obtained, on a single acre, in the United States.

A word in regard to the timber. Here is almost every variety that grows in American forests—the walnut, cherry, maple, hickory, poplar, ash, the different kinds of oak, heart-pine, buckeye, &c., &c. The poplar, oak, hickory, ash and pine grow to great dimensions, many of them measuring, near the ground, over one hundred and fifty inches in circumference. Were the property located near a city, the timber alone, for building, furniture, &c., would yield a fortune. The rail timber is abundant and of excellent quality, and the whole farm is under new and admirable fencing.

Cane creek and the French Broad river are replete with fine fish, and the depth and placidity of the river would afford the most delightful sailing with little sail boats, or the common skiff and canoe.

The forests, swamps and the neighboring mountains are filled with fine game. The deer, turkey, pheasant and the more common game abound. The deer often come down and graze with the sheep; and droves of wild turkeys become almost tame. On the lagoons every spring wild ducks may be killed with the greatest ease. The little son of the proprietor of "Wharne Cliffe," two months ago, brought down three at one shot. Wolves, however, never venture down from the mountains, and the persistent native hunters keep the foxes well thinned. The stock, in consequence, never suffer from either.

The mansion is situated on a cliff, approached by a beautiful carriage way from the State road, on a level ridge, but overhanging

the broad bottoms of Cane creek, which stretch out to the southward. From this point there is one of the finest views of distant mountains and an intervening valley to be found in Western Carolina, and perhaps anywhere. The Blue Ridge to the eastward and the Pisgah range to the westward, approaching each other to the southward, make up a circle of mountains grand beyond conception. Here verily is it true

“That distance lends enchantment to the view,
And robes the mountains in their azure hue.”

I cannot close the description of the natural features of this interesting spot without referring to the exquisiteness of the climate. Without doubt or cavil, the climate of Western North Carolina is the finest, both in summer and winter, on the continent. This is a broad assertion, but it is the testimony of all travellers that have spent any time in this region. Southern and English gentlemen of fortune, in former years, selected this country for summer residences, as much for the climate as for the beautiful landscape and magnificent mountain scenery.

While the winter climate is by no means as rigorous as in Canada or on the lakes, yet it is as dry, bracing and invigorating as that in the far North. The summer air is simply unequalled. No one can sleep in comfort without the covering of one or two blankets even in August. And there is an exhilaration produced by breathing this pure atmosphere that makes you a stranger to the lassitude and depression which ordinarily make the summer a season of dread. Your step is elastic; your spirits never flag; your slumber is perfumed by sweet and refreshing breezes, and the sunshine never drives you beneath the sultry umbrella for protection; but sunshine and atmosphere seem each to rival the other in imparting life and joy to him that basks beneath the one or inhales the other.

I alluded just now to the settlement in this region of persons of affluence. Although the war has ruined most of these people in their fortunes, yet they still form a most attractive feature of this attractive country. They are a noble, generous, unselfish, highly educated people, with social culture unsurpassed. Elegant leisure and ample wealth for generations have afforded these people and their ancestry the highest opportunities of intellectual and social culture, and much travel, foreign and home, adds still more to the interest which attaches to the persons referred to. There is a small settlement of them on and near Cane creek and the French Broad, and a large settlement at Flat Rock, ten miles distant. A number also settled in Asheville and on some of the neighboring farms.

Asheville, however, is noted for its excellent society, apart from the settlers referred to, and some of the first families in the State, and the leading men, live in this little town.

On the State road, but a short distance from "Wharne Cliffe," is a beautiful gothic brick church, one of the handsomest country churches to be found anywhere, and, until recently, a clergyman officiated regularly. Now a Lay Reader renders the services of the Episcopal Church, and reads a printed sermon. A large Sunday school is kept up, and, with an efficient teacher, an excellent day school, in connection with the parish church, might easily be established.

Taking everything into consideration, I have never seen a place more favorably situated, nor a farm possessing greater *natural advantages* than "Wharne Cliffe."

But I promised some notes respecting the agricultural *modus operandi* which obtains here. When the present proprietor came into possession, there were no good pastures, and the soil merely scratched by a sort of one horse cultivation. After re-fencing the whole farm, cleaning out old ditches and digging new ones, and clearing up nearly forty acres of new land, the next things which engaged his attention were a different system of tillage and the sowing down of fields with the most approved grass seeds. I should have said that these two things engaged his attention from the very first, and formed, to a certain degree, a parallel part of his daily operations.

Three-horse ploughs have been followed by two-horse sub-soilers, that have brought new earth in contact with the atmosphere, sunlight, the dews, the rains and the frost. In other words, the new earth has been thrown into a chemical laboratory, in which nature imparts to the fresh earth fresh powers of nutrition. Then, by the application of home-made fertilizers or lagoon deposits, or the ploughing under of green manures, the soil is gradually deepening and strengthening, and will, ere long, amply repay the extra labor and pains-taking.

Seventy-five acres have been sown with clover, orchard-grass and herd's-grass seeds. They were chiefly sown after rye and wheat in the autumn, and either "rolled in" or covered by a common harrow. They both smooth the surface, without materially displacing the grains of wheat or rye. It is found far better to sow grass seed in autumn, and to cover it as described. At all events, the success on "Wharne Cliffe" is complete. The clover stands superbly, and the other grasses are doing well. This coming autumn a new mea-

dow of twenty-five acres is to be set in timothy, orchard-grass and herd's grass—one-half of the timothy to be mixed with an equal quantity of the other two. This will give over one hundred acres of choice grass and meadow land, set in the different grasses. The intention of the proprietor is to fit his place for the dairy, as well as to give pasture to sheep, hogs and horses. But the native pastures of the forests afford the best grazing for sheep—certainly as good as that of the cultivated grasses. Here are hundreds of acres lying unenclosed, belonging to others, and several hundred enclosed belonging to the farm, eminently adapted to sheep husbandry, leaving the other pastures to other stock, except when necessary to keep down or destroy briars and other noxious growth by the grazing of sheep following that of cattle and mules.

I was delighted with Mr. Ruffin's article in the June number. The experience on "Wharne Cliffe" corroborates everything he has said as to the profits of sheep husbandry. Wool brings in barter, in this market, forty cents a pound in the dirt, or fifty cents washed; and without expense of feeding, except when snow lies on the ground, and with but little attention, sheep have been grown, fattened and shorn twice a year with a success worthy of being made public. Without giving the calculation, it may be simply stated that the profit on money invested in sheep has been 255 per cent. in the past eighteen months. Now the flock bids fair to do even better. An addition of a small flock of fine grade and a few full-blooded Southdowns, will enable the proprietor, by selling choice full-blooded or grade Southdown lambs, to augment his profits.

Full bred Durhams have also been introduced on the place—a bull and two heifers, from different sires and dams, the immediate progenitors of which were imported by the Hon. E. Molyneux, deceased, late English Consul at Savannah, Ga. The intention is to effect a cross with the best native cattle for good milkers and beefeves, and, at the same time, through the heifers referred to, to perpetuate the genuine blood of the original Durham.

As above intimated, the proprietor is making all his plans, both as to grass and hay and the proper stock for dairying. No country offers better inducements for making cheese. The investments in real estate do not compare with the amount necessary to carry on dairying in New York or New England. There land is one hundred dollars and more per acre; here the best meadow lands are not more than one-fourth that sum, and the mountain pastures may be bought for a mere song. But the chief advantage consists in the climate. The hot nights of summer in New York and Ohio are

great difficulties in the way of success. Here the nights are always cool, and at no time, day nor night, is the heat oppressive. The Elk Mountain Cheese Factory, near Asheville, thus far is a complete success. They are now milking two hundred and twenty-five cows, and turning off about three hundred pounds of cheese daily. I took a piece of this cheese to Kentucky with me, and compared it with the best samples of factory cheeses in the wholesale establishments of Louisville, and it was superior to every sample tested, both in color and taste. The demand for cheese, both at home and abroad, is becoming greater every year. Americans eat it more than formerly, and the miners of England and the poor of all Europe eat it in the place of bacon. The amount of shipments to Europe from America annually are enormous, and increasing constantly. With such a present and prospective demand, there is no agricultural specialty more inviting than cheese-making.

The next feature relative to stock-raising on this farm, is a range of seventy-five acres all enclosed, eminently adapted to hogs. It is a vast woodland, bottom land, covered with heavy growth of oaks, which affords plenty of mast, and in this same range is a large district of that sort of swamp land where the hog finds worms in the greatest abundance.

Without detailing other advantages for stock, I will simply add that there is no field or range where the purest running water may not be found.

Indeed, the water, like the air of this region, is *par excellence*. It gushes out of every hill, and flows like purling streams of crystal nectar, refreshing and invigorating plant and beast and man; and mingling its gurgling music with the song of the winged minstrels of the woods, the choral melody of "early morn or dewy eve" seems sometimes like the abode of a fairy land.

MARLOW.

Shufordsville P. O., N. C., July, 1868.

Sheep Husbandry in New Zealand.

Editor Southern Planter and Farmer,—It may be a thing unusual for a lady to address you on the subject of agriculture, or matters relating to the farm and field, but taking a very great interest in all that pertains to rural affairs, more especially as it is the interest of the South, and having seen the June number of the *Planter and Farmer*, and read Mr. Ruffin's excellent article on sheep, "What Shall We Do?" I am led to a communication, which, if you approve, you may appropriate to the *Planter*. I observed that Mr. Ruffin made no mention of New Zealand in connection

with England's wool growing countries, while she is one which contributes largely to her wealth in this article. My authority is a gentleman correspondent in Canterbury, New Zealand, a member of the Provincial Parliament, and one largely engaged in sheep farming. From him I have from time to time learned much of the country and their manner of farming. I will here make an extract from one of his letters, with the hope that it may be a timely suggestion, and aid in an answer to Mr. Ruffin's inquiries, "What sort of sheep shall we get?" and "Where from?" "The great mistake in North Carolina, in fact, in the greater part of the States, is the perpetual cropping, instead of grassing the lands and feeding sheep and cattle. Should I ever return to the States, I should continue to sheep farm, and would have either the 'Romney Marsh' or 'Leicester' sheep, which mature much sooner than the Merino. It is the quietest, and, generally speaking, the most profitable business in any country. We have just finished shearing—February 1st, 1867—1,150 Merino ewes and 100 lambs, and have 19 bales of 450 pounds each as the result, valued at about \$2,000. Last month we had a fresh importation of American sheep, and as I have the original shipment, I attended the sale with a view to securing this lot to keep the breed in my own hands, but I only bid £18 each, and they were sold for £19; and it is said that even at this figure there was a great loss to the shipper. They are from Vermont, and of the 'Grimes' breed." "I send you a picture of a Negretti ram and ewe which I imported from Germany at a cost of three hundred dollars per head, and I am now rearing from this breed some splendid sheep. I wish I could send you a few pairs to have them introduced into North Carolina. The Merino sheep which I imported from Vermont cost me \$150 per head for the ewes, and \$100 per head for the rams. In some respects the American sheep is superior to the Negretti, but for wool the latter is far superior. I sell my Negretti lambs from £3 to £5 each. The wool last year (1867) brought $37\frac{1}{2}$ cents per pound, which was the highest price paid in Canterbury."

Mr. Editor, I enclose herewith a sample of the Merino clips from New Zealand, also the pictures of the Negretti sheep, which I will be pleased to have returned at your convenience. If you would like to have an article for the *Planter* descriptive of "Canterberry, New Zealand," and some particulars respecting farming in that country, I will send one at your request.

MRS. WM. J. BROWN, Asheville, N. C.
Cabin Home, Buncombe county, June 29, 1868.

Changes in our Present System of Farming Recommended.

*Mr. Editor,—*In a late ride through a portion of my old county, I was painfully and forcibly struck with the strongly marked ruin now so surely going on upon our large landed estates. I have known that portion of my native county since my happy childhood years. Many and dear were the fond recollections of those happier by-gone good old times, which on that lonely ride were so clearly and forcibly brought to my mind. I had not been along that route since the close of our late destructive war. It was saddening indeed to behold the great dilapidation of the buildings and enclosures, and to contemplate the general ruin, so strongly reflected in each and everything I saw, and how woefully dispirited and dejected were the friends of my earlier and happier days. It grieved me sorely to see my dear country thus in ruins, and her once high-souled, chivalrous citizens thus deeply sunk in almost hopeless despondence, over which I have been almost constantly thinking ever since. The ruin is truly great, and unless something is done, and that very quickly, too, to check this rapid tendency to total ruin, all, all of the good old Virginia stock must ere long be hopelessly lost to us and ours. How can this most desirable end be brought about? Cannot our people be aroused from the destructive lethargy into which they have been driven by their great loss of property, and (worse by far) the greater confusion and uncertainty of every thing, which now rests like an incubus upon our whole country, crushing out every hope, and paralyzing every energy. After the maturest reflection I could give this all-important subject, it does seem to me, if we, like good children of those good old Virginians from whom we sprung, would all and at once awake and arouse ourselves to the importance of the occasion, we might and would effect our perfect restoration to peace, happiness, and greater prosperity and power than our forefathers ever knew in old Virginia's palmiest days. Can this mighty work be effected? I believe it can; indeed, I know it, if we put our humble trust in the great God of the deeply oppressed. Let us, then, one and all, in reliance upon His sustaining help, resolve to do our best to accomplish it. I offer the following as the best plan my poor bewildered brain can suggest, hoping some one more gifted than I am may so improve upon it as to give us a much better plan—one upon which every true Virginian may at once go to work with all his heart and soul and mind, trusting in the wise providence of our gracious Benefactor for a speedy and happy reward to our united efforts. Now we Virginians have very

little left us but our lands, and we can't work them to advantage with any labor at present within our control, nor can we hope soon to be able to procure such labor as will render these lands profitable to us or ours. For our means, we have vastly too much land. We want first of all a good white population, to make ours an entire white man's state and government. This we need more than every thing else besides. To secure this, we should make any and every sacrifice. The safety of our homes, our peace, our happiness and our prosperity depend upon it. We offer the most favorable inducements to immigrants. We have the lands, the water and the climate, and we are the very people to welcome any good citizen from any and every quarter to settle among us. There are millions of such, wanting just such a great country as we offer them. Then let us all determine at once to divide out most liberally with any and all good citizens who will thus come from the South, North, or any part of the earth. Let us furnish them with good lands upon such accommodating terms of rent, lease, or sale, as that all good men can afford to come and settle our surplus lands, and I will venture to prophesy old Virginia will soon be closely and thickly settled with good men from every part of the world; and if we were to give them one-half or more of our lands, I do believe we would be vastly happier, more safe, and greatly richer in ten years than we can ever hope to be under our present system. Then do let us all try it. Now I have a tract of 815 acres of as nice laying land as any in Albemarle county, Va. I will either rent, lease or sell these lands in five, ten, twenty-five, fifty, or one hundred acre lots, upon five or ten years time. An abundance of good lime, already burnt, can be procured within half a mile of it. If rented or leased, I will furnish all the lime necessary to improve the fertility of the lands, and if worked and manured as I do my own farm on which I live, the leaseholds may be had by just paying the taxes. I will pay for good male laborers seventy-five cents per day, they finding themselves, or fifty cents and I find them. I will also pay for two good hands to drive my teams, manage my reapers, mowers, corn-planter and drills, one hundred and fifty dollars wages each per year, with good finding and lodging, and if they are really extra hands, careful, and worth it, I will give two hundred dollars each. I have about 600 acres of good cleared land in this tract on which I live. I will rent or lease one-half or more at one-fourth the crops, if the tenants will manure, work and improve it as I do the part I work. These lands I can rent for one-third by the year, and I do believe half the lands of Albemarle may be had upon the same terms. It

will be to the interest of the people to do this, and when done, it will quickly drive out all the lazy, wandering, thieving negro squatters, the unprincipled carpet-baggers and low trashy whites from among us. If we will all do this, Virginia will very soon be again one of the very first States in all America. Now I do honestly believe it is our duty to our God, to our country, and to ourselves, to do this thing at once, and as it should be done, and then we may hope soon to be a thrifty, happy and powerful people again. Come one, come all to this glorious work. Our friends in the negroized portions of the South should get a copy of their title deeds, bring them with them, and settle in Virginia, fondly hoping the time will soon come when all Americans everywhere will decide that this is, and shall be a white man's government. Then, and not till then, can America ever be America again, and then all honest people may quietly wait and fondly hope to get their just dues.

GEO. C. GILMER.

June 27, 1868.

When to Turn in Clover.

In the regions where green crops are turned under for manure, there is a diversity of practice. Some plough when the crop is in its most succulent state. The rule for clover is when the heads are about half turned brown. The reason offered for this practice is, that the bulk of the crop is then the greatest, and it undergoes most rapid decomposition in the soil. Others do not plough in clover until late in the fall, and after it has been well pastured. The reasons they give for this practice are: 1st, that turning in the clover green, makes the soil sour, and has a tendency to produce sorrel. 2- It has a bad influence upon subsequent crops. 3. In waiting until fall, you have the advantage of pasturing, and if the cattle are kept upon the pasture, as they should, everything the field produces is returned to it. 4. More carbonaceous matter is returned to the soil. What you lose in tops, you gain in the roots of the clover, which have four or five months longer to grow. 5. Better crops follow. Some of the best farmers in Pennsylvania follow this method altogether. Others still wait until the following spring, and turn in the clover just as it begins to grow.—*Am. Ag.*

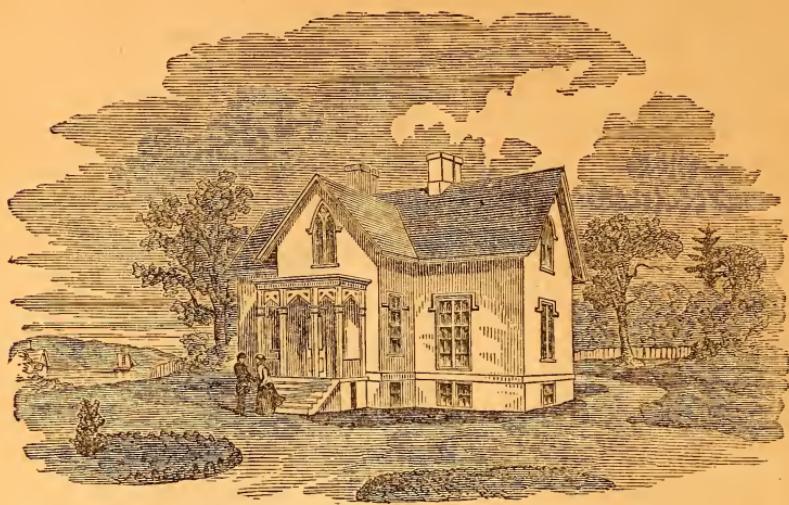
“Suspicion is the poison of true friendship.”

“Be truly wise, rather than wise in time.”

“Opportunities neglected are irrecoverable.”

“Abundance, like want, ruins many.”

The White House.



The above cut represents the front elevation of the new and picturesque villa erected by Gen. W. H. F. Lee, on the above estate. It replaces the ancient structure known as "The White House," rendered sacred by a long train of endeared and tender memories and hallowed family associations. The building was ruthlessly burned and the estate made desolate by McClellan's army on its retreat in 1862. It was the fortune of the present gallant proprietor to lead the advance of Stuart's cavalry, which drove the last of the enemy to their gunboats—the asylum to which, during our late struggle for independence, they so often took refuge for safety and protection when they could no longer stem the sweeping tide of battle in the open field. Connected, as this building is, with the name of the Father of his Country, as well as with the history of the Custis family—one of the oldest, most wealthy and honored families of Virginia—the following brief sketch is offered, which we hope will prove highly acceptable to our readers:

The first Custis of whom we have any record in Virginia settled on the Eastern Shore, and was made Major-General of the militia raised there at the time of Bacon's rebellion. He seems to have been a man of wealth and influence, and was the owner of Smith's Island and much landed property. He was married three times, and left a large number of children, only one of whom—John, the immediate ancestor of the venerable G. W. P. Custis, of Arlington—was sent to England to receive a liberal education. This John married, on Queen's creek, on York river, Frances, the eldest daughter of Colonel Daniel Parke. They had but two children—

Fannie and Daniel. Daniel, a young man remarkable for his personal beauty, wealth and fine temper, married Martha Dandridge the most attractive belle of Williamsburg. They settled at the White House, on the banks of the Pamunkey—the place of which we are speaking—and there dispensed that liberal hospitality for which the Old Dominion was so famed. They had five children, two of whom died in infancy, and the father also at the age of thirty years, leaving his young widow and two small children to inherit his large fortune. Mrs. Custis remained at the White House in charge of the estate, and there married General Washington, who soon after removed with his family to Mount Vernon, though he still continued to exercise a supervision over the White House estate, which was kept under cultivation, and has remained in the family ever since. John Custis, the son of Mrs. Washington, as well as her daughter Martha, lived at Mount Vernon, and were the objects of the tenderest paternal care to General Washington. John, as we have seen, was the immediate progenitor of General W. H. F. Lee's grandfather, G. W. P. Custis, whose only daughter was married to his father, General Robert E. Lee.

The above cut is from a drawing by A. L. West, Esq., a practical and experienced architect of this city. He had the drawing handsomely photographed at the "Lee Gallery," by the Messrs. Davies, by means of which copies can be multiplied to the extent that may be desired by those who may wish to possess themselves of a handsome and interesting parlor ornament. We are indebted to the skillful pencil of Mr. W. L. Sheppard, a young and rising artist of this city, for the drawing on the reduced scale which adapts it to the dimensions of the pages of the *Southern Planter and Farmer*, and also for the engraving, executed under his direction, and procured for us by him at a lower rate than we could have procured it without the intervention of his agency. We commend him to the patronage of those who may want anything *well done* in the line of his profession. He is the grandson of Nathaniel Sheppard, and son of William P. Sheppard, both former chamberlains of Richmond, whose memories are affectionately cherished by very many of our older citizens, who will recognize in the worthy descendant of so honorable a parentage a hereditary claim to their kind and favorable consideration.

"Beware to whom you commit the secrets of your mind."
"Self-conceit is the attendant of ignorance."

What Shall We Do?

No. 4.

SHEEP HUSBANDRY CONCLUDED.

(Continued from page 399.)

The demands of an indifferent wheat, but of a heavy hay and oat harvest, prevented my finishing what I had to say on the above subject in the July number of the *Planter*; which I the more regret as it was but little I had to add.

Mr. H. S. Randall, as the observant reader will remember, thinks fine wool husbandry better adapted to Virginia than mutton growing. I differ with him as to the most of the State, though I think the difference is immaterial, the main question being to *get sheep of some breed*. I know he underrates the grazing capacity of our soils, especially in their adaptation to sheep, and exaggerates the difficulties of keeping the sheep through the winter. When the country becomes filled up with sheep, a shorter winter and a plenty of hay and corn blades and stalks, with grain or some other substitute for roots, (which, I hold, are the dearest food in any part of the United States,) will take the flock-master through the winter as easily as he can pass it anywhere else. The business once started it will arrange itself, and each kind of sheep will be placed where it can be handled to most profit. As in Great Britain, so it will be here; there, lands that will not fatten sheep carry large flocks of them, to be sold in a lean state to farmers that can fatten them. Here, we can do likewise, as in the Valley is now done; or Merinos, which pay in wool, and need never turn off a fat sheep, can be kept on lands too scantily grassed to make mutton. And this contains the answer to Dr. Tabb's objection that the sandy uplands of Gloucester cannot raise sheep.

Mr. Randall thinks there will be danger of overdoing the mutton production; and that there are countries in the Union better adapted to mutton than Virginia is. These statements may be both true, yet contain no adverse argument. As to the first, the same remark will apply to every staple grown in Virginia and North Carolina, except tobacco; and would forbid our raising wheat, corn and oats. As to both, it must be remembered that the *cost* of production will decide who shall go to the wall in case of *over* production and competition.

The whole of Tide-water Virginia is palmated with navigable streams, which give us easy access to every Northern market; the up-country is nearly as well supplied with railroads; and in these

ways all the markets can be reached by live stock, as they are now reached by as perishable articles as strawberries and peaches. According to the New York *Tribune*, New York city consumed, in 1866, upwards of one million of sheep and lambs. Allow for all the cities of the Atlantic one and a half times as much, and we have two and a half times as much, and we have two and a half millions of sheep and lambs for those markets alone. Of these, I propose (*Planter* for June, page 324,) that Virginia shall furnish one-fifth, as soon as she can get the sheep. Suppose she contributed her quota as lambs. She can put them into the June market, and they will bring in New York from six dollars down, as in quality. Now I have claimed (*Planter* for June, page 327,) that we have a four-fold advantage, and that will be enough margin for successful competition. But, indeed, the advantage under our present circumstances is still greater:—According to facts with which I have been obligingly furnished by General J. D. Imboden, Land Agent, obtained from letters in his office, the valuation of our Tide-water lands made by parties *offering to sell* is now only \$8 per acre, average, against \$20.88 in 1860: whereas, the districts that would compete with us cannot rate at a lower average than \$40. And many hundred farms in Virginia, worth intrinsically \$100 per acre, would not now obtain a bid if put upon the market. These lands will grow mutton to perfection, and can make a good rent in that way, when they will not yield a crop now for want of labor. This is particularly the case with many of our best wheat farms, especially on James river above and below the Falls, and I believe it is equally true of the best lands on most of our large streams. It is true that there is another cause besides the want of labor for the failure of the wheat crop on these lands. The system of green manuring, (clover,) that had been the practice on such lands before the war, required heavy cropping to prevent such an accumulation of vegetable matter in the soil as would give the condition least favorable to wheat. The comparative cessation of culture during the war, and the scarcity of labor since, have combined to fill these lands with vegetable matter now; and, in my humble judgment, there will be disappointment in the wheat crop until the system is changed by the introduction of stock of some kind into the rotation. I prefer sheep as the main item, by no means excluding others. Sixteen years ago, I ventured to make the same suggestion to the farmers of Eastern Virginia; and I now repeat it, with all the emphasis I can. If it was needed then, it is indispensable now. The most sagacious observers predict that, in fifteen years, Virginia will have revived, either by

the efforts of her present landed proprietors, or by a race of STRANGERS who shall displace them. Our effort should be to keep afloat until that time; and I confess I do not think it can be done by arable husbandry alone. The wheat crop of 1859 for Tidewater, Piedmont, and the Valley was 10,598,520 bushels; the crop of 1866 was only 4,831,364, or less than half. This yield, under present circumstances, is not likely to be exceeded, at least in Eastern Virginia; for farmers have not the means to purchase fertilizers, and negro labor becomes less and less valuable, as the negroes that were trained by white men die off or remove, and their places are taken by their children, who are not trained at all. The average per acre for 1866 was only 6 7-10 bushels, and much less than that leaving out the Valley. At 6 bushels per acre, and \$2.25 per bushel, and \$10 expenses per acre, we have only \$3.50 per acre rent for the land, or one-half of what I have made on my flock of sheep. The crop of wheat will exhaust it; but the flock of sheep will improve the land, and enable us by means of the improvement to grow more wheat. These figures, and indeed all that I have used in this connection, are not presented as absolutely true, but only *pro forma*, and for illustration. Still they come so near my actual experience, that I have concluded I cannot afford to grow wheat, except to introduce clover and grasses.

My friend, Mr. Newton, has done me the honor to commend what I have written, but takes issue with me on one or two points; for which I am very much obliged to him. He says: "Forty cents for wool is nine cents above the highest Baltimore price, and five dollars is much above the market price for lambs." He also says my command of the Richmond market, where I can sell in person, at my own time and *my own price*, (hardly!) gives me peculiar advantages. It is true I have peculiar advantage in my contiguity to Richmond; but per contra I rate my land at sixty dollars, and charge accordingly, in my estimate of profit per acre. If I had rated it at \$20 per acre, the rent would have been 35 per cent. The charges of selling in Richmond are 5 per cent., and I would rather pay that to a good man than trust to my own judgment in selling. The reason I do not pay it is, that my salesman is an intimate friend, and will not receive compensation.

I may have erred in putting wool at forty cents; but my mistake is not quite equal to Mr. Newton's in assuming that I put lambs at \$5 in market. I rated my reserved stock of choice grade Southdown ewe lambs at \$5; but my estimate of the profit of the business for Virginia, at page 324, put lambs at only \$2.50. Mr.

Newton also calls my attention to the practice, obtaining in some of our counties, of grazing wheat with sheep until late in the spring. The best English authority says: "It requires great circumspection and practical experience to ascertain when it may be proper to adopt it." British Husbandry, Vol. 22, page 150. I think there is always risk in it; and if it answers on the light lands of Essex and King and Queen, the fact is probably due to the trampling of soil otherwise too light for wheat.

Another gentleman writes that I have understated the capacity of our lands to carry sheep. I know I have. The English rule is that very good land will carry five sheep and one cow per acre, good average land will carry two to three sheep and one cow; or twelve sheep in the first case and eight in the second, if no cattle be kept. An acre of poor land will keep one-half a cow or five sheep. This estimate is for the grazing period. But I have not proposed such heavy stocking here at present, because it would involve artificial winter feed, which would cost both labor and grain.

This finishes what I have to say on this branch of my subject. I have not attempted any elaborate dissertation, because it has been expanded in other works; and all I could have done would have been to repeat, or make abstracts of, those, almost any of which are much better than any I could have written. At the head of these I place, especially for our people, my friend, Mr. H. S. Randall's book, *The Practical Shepherd*.

My purpose has been to call the attention of my brother farmers to a very important subject, and to urge sheep husbandry on them as one means of helping us all out of our present straits. I have tried to show that other nations have suffered greater calamities than we have, and yet live in strength and glory; that others again with a worse climate than ours, a savage population, and at a remote distance from their market, have reclaimed a howling wilderness; and in each case, that it has been done by means of sheep. I have given my own experience in this line here at home; I have gathered and presented the views and experience of others, in other places, in the same matter, and have pointed out how I thought we could get the sheep, and how we could dispose of their produce in meat and wool, and how we could thereby obtain a good rent on land, which, otherwise, we can neither sell nor cultivate, and at the same time improve our capacity for wheat.

Whether my brother farmers will adopt and act upon these suggestions; whether they will consider them; whether they will ever read them; whether they will look for relief to the result of an-

other struggle between a Radical Congress and a possible Conservative President; these are questions I cannot answer. But I tell them they had better heed their ways, or their lands will slide from under them, and they will be bankrupts and beggars. I know they can save themselves if they will.

FRANK G. RUFFIN.

P. S.—I append a communication I have received since the July number went to press. I thank the venerable author for the trouble he took to send it, as well as for the valuable testimony he gives from his experience of fifty-six years in sheep husbandry.

F. G. R.

In 1812, when war was declared between the United States and England, I was doing business in Montreal, Canada. Being an alien, I was ordered out of the Province. I left, and went directly to Washington city, where I purchased fifty-two Spanish sheep of the importer, for which I paid eighteen hundred and eighty dollars. I took them to this section of country, where I have remained ever since, engaged in raising fine wool. My average number of sheep is about five hundred. For the last five years my wool has netted ninety cents per pound. With sheep and clover I can make any land productive, unless it has the barrenness of the sands of Sahara. Enclosed you will find a paper giving directions for managing sheep. Prosperity in all communities is sure to follow, where the hand of labor is suitably appreciated. When you understand that I have passed my eighty-third birth-day, you will readily excuse the illegible character of my hand writing.

Respectfully, yours,

NATH'L P. ATKINSON.

Elm Grove, Ohio county, W. Virginia, May 15, 1868.

P. S.—The printed paper that is enclosed may be useful to some of your farming neighbors. Of that part of my farm which was cleared when I purchased it, its capacity for crops has been increased more than fifty per cent., all of which has been accomplished by clover and pasturing sheep.

BREEDING AND MANAGEMENT OF SHEEP—LETTER FROM AN OHIO COUNTY (W. VA.) FARMER.

In order to the formation of a good flock of sheep, it is, in the first place, essential in the selection of your breeding ewes, to reject

all under two years old ; also such as from age have defective teeth. Yearling ewes which have lambs the spring they become two years old, usually make poor nurses, in consequence of not having a sufficient supply of milk to give their lambs a fair and full physical development; and all my observation goes to show that lambs thus raised make a miserable stock of sheep, and it is from the same reason that old ewes should be rejected as breeders, for they too are deficient in the amount of nutriment required for the sustenance of their lambs.— Most sheep-raisers are anxious to raise all the lambs they can ; hence with a view to this end, they will breed from the old and young. When this is the case, I have invariably observed that much trouble and ultimate disappointment followed. Many lambs raised from such sheep will dwindle and die in August and September, and those that survive the first winter, make at best very defective stock.

If the object of the sheep-raiser is to cultivate fine wool, he should select bucks that are evenly fine all over, and thick set, and as great length as can be obtained consistent with compact fleece ; great length of staple and compactness are not usually found together.

Two vigorous bucks, if well fed, will answer for one hundred ewes. The time for putting the bucks to the ewes may vary according to the convenience of the sheep-raiser, and the latitude of his location. With conveniences for the protection of lambs, the middle of April is a suitable time for the lambs to come. It is desirable to have the lambs come as near together as possible. With a view to this end, the ewes should be in high condition when the bucks are put to them. In adjusting the size of the flock to the pastures on which they are to range, it must be borne in mind that the smaller the flock the better the lambs will do. Pasture lands should never be so heavily stocked as to have the grass shaved to the bare ground. When there is a generous amount of feed left, the roots of the grass are protected from the action of the sun and frost.

In all sections of our country north of latitude forty, nice, luxuriant blue-grass pastures can be had, and if properly managed in open winters, will contribute largely towards sustaining sheep. Lambs should be weaned by the middle of August. I have found a clover field the best for this purpose ; with a little management they can be made to eat oats, and nothing will make them grow faster. At all seasons it is more or less essential that sheep should be classified, but indispensably so in the winter. Hay, which should constitute the principal food for sheep, ought to be cut from the last of June up to the middle of July, and saved with all possible care,

avoiding both rains and dews, and stirred to a degree that it will not heat in the stack or mow, as the case may be. Lambs fed with what good hay they will eat, together with one-half bushel of corn or a bushel of oats to the hundred, with water convenient, will be sufficient to keep them in good growing order. A lack of convenient water is among the greatest errors of sheep-raisers. The most abundant supply of food, as above directed, together with shelter, is essential to bring fine lambs to the age of one year, and the same tender care is necessary to carry them through the second winter to mature them to perfect stock. More sheep die from diseases contracted by bad and insufficient food and the want of shelter, the two first years of their existence, than from all other causes combined. When sheep are properly divided, have an abundant supply of suitable food and water, and good shelter in winter, hospitals and medicine chests can be dispensed with.

Breeding ewes should be kept in good condition at all times. The first inducement for this is the increased quantity of wool over what they would have with *moderate* keeping, and you may superadd a lamb to each ewe, or nearly so. My practice is to break up sod ground for corn, the succeeding spring I sow oats followed by a wheat crop; a sufficient amount of timothy seed is sowed at the time the wheat is harrowed; the following Spring, about the 20th of April, I sow clover seed. By the above course of farming I have fresh meadows every season; and it is a fact worthy of special notice, that new meadows do not suffer from drouth like old ones. The farmer who makes it his principal business to raise sheep, should make it a prime object to have an abundance of good hay, that will supersede the necessity of the sheep-killing system of feeding straw.

Some recommend cutting the hay which is fed to sheep. This I consider labor lost, inasmuch as the digestive organs of sheep are more complete than most animals. There is nothing more important in sheepology, than in having them in high condition at the commencement of the winter. If your sheep are poor the first of December, they will be likely to remain so all winter, unless very great pains are taken to improve their condition by high feeding. Buck lambs are more tender and difficult to raise than wethers, and the latter more than ewes. Nice attention to weaning and early feeding with grain in the fall, together with abundant feeding through the winter, will overcome the evils to which they are liable if neglected.

I noticed recently in the *Country Gentleman*, that information

was asked on the subject of confining sheep to their yards in the winter. This winter finished up fifty years that I have kept sheep; through all of this time it has been my practice to allow the sheep to have range of the pastures in pleasant weather, and from it I think much benefit has been derived in the economy of feed, and health to the stock. The failure of others to see this matter in the light that I do, is perhaps owing to one of the following reasons. Either their pastures are not of the right kind, or else not in a right condition. Blue-grass pastures afford desirable locations for sheep; it not only pleases their palate, but gives them substantial nutriment. The effects of frost is very different on blue-grass to what it is on other grasses; the injury is very slight; were it not so, the sheep would not be so eager to eat it, and then would like their usual amount of hay.

NATHANIEL P. ATKINSON.

Elm Grove, Ohio Co., West Va.

The Situation in Texas.

Mr. Editor,—You ask me of Texas. What shall I say? I would rather write about Virginia. But you have already so many pens, abler than mine, and *Virginians*, employed in that, to them labor of love, that it would be presumption in me to touch upon it.

No doubt it would be an easy matter so to write of Texas, as to bring her as you remark “within reach of the wave of immigration that is now tending Southward from Europe and the North.” It is done every day. Scores are writing of Texas, for publication in journals far to the North and West. But I have seen nothing in any Virginia journal.

There is *none* we would so gladly welcome to Texas, as respectable citizens of your glorious old State. We need them; greatly need them. For although we can boast of great and good men, we have a very large proportion of those who are neither the one nor the other.

The country, the climate, and the soil are all that man could desire. Yet I for one hesitate to advise the breaking up of an old and happy home, to come to a comparatively new country, no matter what the inducements offered; unless in cases where a recovery from the ruin that has overwhelmed us all, and improvement in the present position are hopeless; or where other causes render a longer stay in even that dear old home, utterly unendurable. And, alas! there are many, many such cases.

Your people may rest assured, that if they will muster courage to endure where they are, what they will certainly have to undergo in any change to a newer country, they will do better in the end.

I know—no one knows better,—that this is no easy thing to do and requires a degree of stern determination supported by christian patience and endurance, that not every one is capable of.

Yet had I been stripped in *Virginia* as here of a large force of negroes and a large and extremely valuable plantation rendered almost worthless, I would greatly prefer beginning the world anew upon one or two hundred acres, or even forty or twenty, amongst old friends whom I knew and could rely upon ; and trust to the vast resources of the climate and soil of Virginia, with all the advantages of unlimited markets, than to remove to a new country.

You must excuse this apparent egotism. You address me personally.

The curse of emancipation falls, in Texas, only upon the former owners of large bodies of slaves. Their first teacher—the first head of the Freedman's Bureau, one of the vilest of the vile—did all that such a man could do to corrupt and vitiate them ; and wherever his counsels reached them, they are corrupted indeed. His advice, amongst other things, was, “ don't stay with your old masters; any body but them, you will never be free whilst with them. Masters ! you have no masters but God ! ” and so on and so forth.

Negroes so taught, and amongst other things it is to be presumed, as *their* rights in *meum and tuum* squatted all around, making little crops, or pretending to do so, upon the lands of those who will go any length to have negroes about them ; your own slaves, I must of course say, “ that were”—who know all the ins and outs of your place, where every pig makes its bed, where every chicken roosts, the loose plank in every tool house and corn crib, life is but little worth having and to attempt to accumulate property is folly.

The happy man is he who turned all he could into money, and has thus a something to keep along his own individual efforts, until better times, which I still hope for.

The stranger has much less to try him. There are some negroes who can be hired, and will do a very moderate day's work, for a very full wage. The stranger can now purchase most desirable farms for less than the fencing cost ! He will begin with a few head of stock ; will secure every picket and every plank as he goes along. And having at first little to lose, will be able to save that little.

As to the encouragement of immigration, much has been done by a very few individuals—I may some day give you the history of one

enterprise—but nothing by the people generally, or by the State. In fact, members of the legislature and not a few of them, not only voted down all such efforts, but scouted at the idea! “They wanted no Dutch, or *sich like* amongst them.” These were from the northern and eastern parts of the State. But I do not believe they represented their constituents. No such feeling exists in the southern, central or western portion of the State.

Shall I continue the subject, taking “Texas and her resources” as my text?

THOMAS AFFLECK.

Glenblythe, near Brenham, Washington co., Texas, June 1868.

We shall be pleased to hear from our esteemed correspondent on the subject referred to at the close of his communications, namely; “Texas and her Resources.” Our readers will find another interesting and valuable communication from our correspondent in our horticultural department.—ED. So. PLANTER AND FARMER.

Reply to Dr. Atkinson on Corn-Planting.

Many engagements and much ill health will prevent my continuing the papers on our exhausted and abandoned lands in the August number of the *Planter and Farmer*. It will, however, take but a few moments to set forth the mode of planting corn, which strikes me as the most advisable, and which will furnish, as I hope, a satisfactory reply to the strictures of Dr. Atkinson on my unfortunate reference to his premium essay. If my few and very kindly intended observations are read a little more carefully, I think it will be seen that the only design of them was to call attention to the prevailing habit of overlooking the preservation and improvement of our Southern lands by all classes, and among the rest even by men of such intelligence and capacity as he must be, who was capable of drawing up a paper so happily, and in all other respects relating to its subject, so valuable.

It appears to me Dr. Atkinson has particularly mistaken the drift of the few last words of my remarks. Speaking of the corn crop as the great exhauster of our section, I observed: *It has always been so, and always will be, until we can fall upon some method of cultivating it, which shall, at least to some extent, counteract its ruinous effects.* That, it seems to me, were an easy matter; though others might view the case in a widely different light. My language in this passage was carefully studied and guarded. Strictly inter-

preted, it means no more than that the writer conceived there is a method of cultivating corn, which would, *at least to some extent*, counteract the ruinous effects of the prevailing method. This is a very different matter from setting myself up as the teacher of a system, by which a most exhausting crop could be cultivated and, at the same time, made to contribute to the positive improvement of the land. But such, and such only, was my position; and I regarded it as sufficiently fortified against misconstruction by the opening sentence of the succeeding paragraph. *At all events the cultivation of corn will not answer in any system we may adopt for restoring our exhausted and abandoned lands.* It partook more of a negative than of a positive character. The process of depleting and exhausting is one thing; that of replenishing and restoring is another. I simply proposed preventing the former, not effecting the latter. But without further preliminary, let us proceed to inquire whether this may not be done, and that by men of very limited means.

Let us suppose, then, some small farmer has a few acres of land some years redeemed from the forest, but yet retaining nearly, or quite, all its original strength and productiveness; for it will be perceived I am not now on the subject of lands worn out and turned to waste. We will suppose that two years ago he planted two of these acres in cotton, in such a way as to produce a fair yield; that after the lint was gathered, the ground was well ploughed and cross-ploughed to the depth of ten or twelve inches, by ploughs so constructed as to leave, as nearly as possible, all the trash from the cotton, dead weeds, grass, etc., together with the surface soil, on top, and that the land was then seeded with winter wheat, with the cotton seed scattered over it. If well seeded at the same time with clover, it would have been all the better; but for this, admit that he is too poor. We will next suppose that the season, after the wheat crop was taken off, having been favorable to the growth of weeds and grasses, a heavy after crop of these came on, which was left to lie undisturbed, by cattle or otherwise, till late in February following, when the land was well ploughed and cross-ploughed again with ploughs of the same construction as before, and the whole left in that condition till time for planting corn. Trenches for this should be opened with a wide and deep plough, three feet apart, and the seed dropped in the rows two feet apart, and so as to secure two stalks to each hill. The seed should be carefully covered with the hoe, pains being taken to avoid getting too much straw and trash about the roots of the young plants, on account of its

tendency to produce worms. The next step for our farmer will be to spread over the face of these two acres, broadcast, all the manure he can muster and spare from his own scanty resources, and let it lie there to be worked in gradually with the common course of cultivation. There will be little fear of an overdose, if managed in this way; but, if he keeps two horses, two cows, two dozen fowls, half a dozen hogs, and carefully husbands and composts the droppings from these, together with the night soil of his own family, there will be enough to make a fine crop, besides enough with the wood ashes, leached and unleached, for the garden. Of course, we also suppose the common rate of peas and pumpkins to be planted among this corn at the proper time. From the time the corn is up, the cultivation may be carried on according to Dr. Atkinson's own plan, on which it would be presumption in me to suggest any improvement. Now, supposing this land at the outset to have been of fair medium quality, I think there will be a good crop on it. The condition for laying by, if the season is favorable, will come on comparatively early. By that time the corn, which will stand pretty thick, together with the pea and pumpkin vines, will form a complete protection from the sun, and at the same time keep down the growth of hurtful weeds. If our farmer understands his interests, he will gather no blades from this corn—no tops for winter fodder. For that he will depend on grass lots, according to my late article on soiling. Gathering fodder and tops from corn by hand, is a poor business in any point of view it may be placed. It was bad enough under slavery, but in these days of free labor, it will not pay at all—it will not begin to pay. The shade afforded the land by the blades and tops will be of more value to him than all that could be thus collected would be as winter provender, to say nothing of the expense of gathering, the loss by wet weather, etc. After the crop is gathered—peas, pumpkins and all—the shucks having been left on the stalks as the corn was taken out, the next step will be for the farmer to turn on his hogs to gather up the waste material, of which they will find a good deal to prepare them for furnishing the next year's meat. As soon as they have made clean work of this, the next step will be to put in ploughs and uproot the corn-stalks, pressing them down close upon the surface with a roller following, where they will decompose much faster than if covered under, however deep, or however slightly, and their material will go to supply nutriment for the next crop of oats, cotton or spring wheat, as our farmer may select.

Now let a course of this kind be steadily pursued for a series of

years, making corn the crop every third year, and manuring it, but it alone, invariably, and will any man attempt to persuade me that the land so managed will deteriorate as fast as it does under the ordinary management? All the eloquence of Cicero and Demosthenes, William Pitt, Daniel Webster, Henry Clay and Calhoun united, with our good friend Dr. Atkinson to help it out, could not make me believe that. Yet this is all I have asserted. Substantially, I proposed nothing more than to make corn without subjecting the land to a course of ruinous depletion, equal to that of the common method of cultivation.

But is this course practicable? Certainly it is. Why not? It is equally adapted to the poor in his poverty; to the rich in his abundance; to the man of easy fortune in his golden mean. It may be put into practice upon an acre, or on half an acre, on two acres, five, ten, a hundred or a thousand, according to the means of the operator. And, whatever may be said or thought to the contrary, we have to come to it sooner or later, or to something near akin to it. In the present state of affairs, particularly in view of the high rates for labor at the South, we have all to learn to appreciate, a little more highly than we are now inclined to, the vast superiority of doing things well on a small scale; to know that one acre well tilled is better than two acres half killed. The sooner we come to this conclusion the better for ourselves individually, and the country at large; for, among all the means of national prosperity, agriculture ever has been and ever must be the PRIMUM MOBILE.

T. S. W. MOTT.

Garden Farm, July 19, 1868.

Proposed Physical Survey by Washington College.

The Trustees of Washington College at their recent meeting passed a resolution appointing a Board of Survey, composed of the President and the Professors of Pure and Applied Mathematics, Natural Philosophy and Chemistry.

The object of this Survey is to gather exact information of the geography, mineral resources, industry and natural history of the South, and particularly of the State of Virginia—and to publish the same—for the use and benefit, not only of the Institution in its instruction, but of the country generally.

Such a work must involve an amount of labor so extensive, and

will require expenditures for publication and exploration so great, that to prosecute the undertaking with success we feel called upon to invoke the co-operation of all who feel an interest in such matters.

Accurate topographical maps of the several counties of Virginia will be published, accompanied by such information of their agricultural, mineral and other wealth as cannot fail to be of great value and interest, alike to their inhabitants and to the public generally. And to this will be added the publication of such information on important regions beyond the limits of the State and on special subjects of scientific and practical interest to the country as our means and facilities shall permit.

It is hoped that the usefulness of this work will elicit cordial and extensive co-operation. Much may be achieved by combined effort. And to this end we appeal to gentlemen of liberal views in the respective counties for their cordial assistance.

Heretofore, reliable knowledge of the resources of the Southern country has been sadly wanted. The geological survey made by order of the State of Virginia was not completed, and the State is not now in condition to renew such an undertaking. Meanwhile, the resources of our Southern land require investigation for the development of its wealth and restoration of its prosperity.

R. E. LEE, President W. C.,
A. L. NELSON, Professor Mathematics,
W. ALLAN, Prof. Applied Mathematics,
R. S. McCULLOCH, Prof. Natural Philosophy,
J. L. CAMPBELL, Professor Chemistry.

Editor Southern Planter and Farmer:

At the instance of General Lee I send you this Circular, with the request that you present it to your readers, or take such notice of it as you may think proper.

Yours, truly,

A. L. NELSON.

Washington College, Lexington, Va., July 2d, 1868.

We spoke of the transcendant importance and value of the above proposal in our July number. We need add nothing more, as the great work addresses itself directly to the interest of every one engaged in any of the industrial pursuits of the State, and through them to all those who are dependent upon those industries for the support and success of their business. Is it too much, then, that in

an undertaking involving so much of labor and expense, the Board should "feel called upon to invoke the co-operation of all who feel an interest in such matters" in order to the successful accomplishment of the great undertaking?

If properly appreciated by those for whose benefit this movement is intended, we would not permit ourselves to doubt of the success of the appeal of the Board "to gentlemen of liberal views, in the respective counties, for their cordial assistance," but in the present depressed condition of the country we do not look for such a general conviction of the usefulness of the work as to elicit at *this time* the cordial and extensive co-operation which it must ultimately command if it is ever carried to a successful issue. Meanwhile there may be counties or districts which, by reason of superior advantages in material means, may be ready to offer pecuniary and other aid to the Board to secure the commencement of the survey in their locality, and we may hope as the work progresses, other counties or sections will be in a condition to offer the co-operation and assistance asked for, and that in truth when once begun, it will meet with no serious obstacle to its steady progress to completion. The plan proposed by the Executive Committee of the Virginia State Agricultural Society in their report of 1858 when suggesting to the Society a survey of the State, more limited in scope than the one now under consideration, but embracing some of the same objects, may, with modifications according to circumstances, serve as an outline of a plan which may facilitate the procuring of the assistance asked of the liberal-minded and public-spirited of the respective counties. We copy the following extract from the report referred to in which the committee recommended:

The cautious and limited beginning of Geological and Agricultural Surveys and reports thereupon, either for separate counties or for any other stated and limited spaces of territory. The importance of a geological survey will not be over-estimated; and the effect of a proper agricultural and statistical survey, similar in plan to the truly great work formerly conducted under the direction of the British Board of Agriculture, may be estimated from the influence of that work on the agriculture of England.

The carrying through in any specified time of a system so great and complete, for the whole territory of Virginia, could not be effected, nor even thought of as a result to be produced by our spare funds, and with all the available aid in prospect. Neither would it be necessary, nor desirable, for the whole operation to be in progress at once, or to be completed, generally, in any early

time. Even if funds were now abundant for the purpose, the much larger portion of the State is not yet ready for the undertaking—and but a small portion of our people would yet appreciate the benefit, or be desirous, or even ready to profit fully by agricultural surveys and investigations. But certainly there are now some counties, or other localities, already enough advanced in agricultural improvement to be greatly benefited by these measures, and whose cultivators would so highly appreciate the benefits, as to be willing to pay half the necessary expense—and also by other aid and information to forward the labors of the examiners and reporters of agricultural resources, merits, deficiencies and errors, of the several districts. If, for example, this Society chose to offer \$1,000, by an appropriation, for this object, and as a beginning and working of the plan, the appropriation should be offered in separate sums of \$250 to each of the first four localities, (of any stated limits) that would severally advance an equal amount, to employ and pay well-qualified persons to examine and report fully upon the several sections of territory. In this manner, by the Society's offering \$250, as much more would be added thereto from private contributions—or in default thereof, no expense would be incurred. There could be no contest, or struggle, for different places to have preference of selection, and the first benefits of survey, because the designation would be made in the order of time in which offers of equal pecuniary aid would be made to the Society. No county would be thus examined, and its agriculture reported upon, that did not care enough for the benefit to be willing to pay half the expense. And the reports made of even a few of the most improved counties, in detached parts of the State, by as many different competent examiners, would serve not only to benefit the several counties, as it would principally, but also as instruction for all other lands of similar characters, or having like facilities for improvement and good management. The early labors of this kind would serve to prepare for and facilitate any succeeding surveys. And if, by possibility, there should be either failure or disappointment, in the results, the system could be suspended, or abandoned, at the close of the first, or of any later year's operation, without leaving any incumbrance for the future on the funds, or any obstacle to subsequently better devised plans and efforts of the Society, for its great object, the improvement of agriculture throughout the territory of Virginia.

Since writing the above we have met with and clipped from the Richmond *Whig* the following extract from the report, by a com-

mittee, to the Board of Visitors of the Virginia Military Institute, from which it will be seen that substantially the same work as the above has been resumed by the Institute, having partially commenced their operations before the war. We hope there may be perfect harmony, co-operation and division of labor between the two Institutions, whereby the economy and dispatch of the work may be promoted:

“PHYSICAL SURVEY OF VIRGINIA.

“*Extract from the Report of Committee of the Board of Visitors of the Virginia Military Institute, Adopted July 4, 1868.*

“The committee on so much of the superintendent’s report as relates to the physical survey and geographical map of Virginia, beg leave to report:

“That the acceptance of Commodore M. F. Maury, LL. D., of the Chair of Physical Sciences in the Virginia Military Institute, enables the Board of Visitors to resume and to put into effective operation this important State work, which has for nearly twenty years engaged the earnest attention and co-operation of the Board.

“In 1851 the expediency of using the officers of the Virginia Military Institute as agents to conduct a triangulation and physical survey of Virginia, was brought to the attention of the Legislature of Virginia by the Board of Visitors in presenting the report of the Superintendent. The subject is introduced in the following terms:

“‘There is one other topic to which I would advert which will, I hope, at no distant day engage the attention of our Legislature. I allude to an accurate geographical and geological map of the State. We have several maps of the State which have been prepared with much labor and expense, but they cannot be relied upon, from the fact that they have been compiled, for the most part, from common compass surveys, or from the ruder conjectural lines of our earlier surveyors. I propose that the State shall make use of this Institution through its officers and graduates, to furnish itself with an accurate trigonometrical survey of the State. This survey could be commenced now under great advantages by connecting our triangulation with the lines on our coast belonging to the United States Coast Survey, by which arrangement we should be saved the labor and expense in the measurement of a base line. In connection with the triangulation, it is proposed to carry on a thorough system of astronomical and magnetic observations, topographical and hydrographical details, and to collect and exhibit all that is essential to a

knowledge of the geology or the natural history of the State. The value of the work depending upon its accuracy, it will at once be seen that it will, of necessity, require much time, labor and expense, but I may with confidence assert that an ample equivalent will be returned in the results which will be secured.' (Report of Superintendent Virginia Military Institute, July, 1851.)

"This report was referred to the joint committee on the public library, and the Superintendent was instructed by the committee to report in detail a plan of the work with estimates of annual expense for the same. This report was made, but the lateness of the session prevented action upon the subject by the Legislature. No provision having been made by the State for the work, a beginning was made by the Institute itself. 1st. In the survey of the county o Rockbridge by Professor Gilham, assisted by a party of cadets, and the publication of a lithographic map of the county. This map was designed as *preliminary* to a more *accurate* survey and map, and was a beautiful illustration of the efficiency of the agency to be employed. A copy of this map is in the State Library at the Capitol. 2d. A careful *geological survey* of the county of Powhatan, also made by Professor Gilham, a report of which was published, and constituted a most valuable contribution to the physical history of the State. 3d. A *model in plaster*, delineating the topography of Virginia, by Professor T. H. Williamson. This ingenious and laborious work of art is also in the public Library of the State in the Capitol, and is eminently suggestive of the general nature of the proposed survey of the State.

"The war terminated these labors for a time. Immediately on the re-organization of the Virginia Military Institute in 1865, effective steps were taken to continue, with earnestness and effect, the work already begun. General G. W. C. Lee was placed in charge of the secondary triangulation and topography, Captain J. M. Brooke of the primary triangulation, and Professor M. McDonald was charged with collecting the elements of the Natural history of the State. And to give even greater efficiency to a work which had engaged the earnest support of the school for nearly twenty years, which it had originated and was struggling to carry forward, unaided by State or individual contributions, the Board of Visitors, on the 22d February, 1868, unanimously appointed Commodore M. F. Maury, LL. D., Professor of Physics in the Virginia Military Institute, and placed him in charge of the Physical Survey of Virginia.

"The Board of Visitors are gratified to know that other Institutions of the State are now giving their sanction and authority to the

views thus long entertained and earnestly developed by the Virginia Military Institute, and they anticipate from these evidences the beginning of a more appreciative sense of the importance of the work itself and of the practicability of the means proposed to be used in its execution.

"Commodore Maury is expected to assume the charge of the physical survey of Virginia, under the authority of the Virginia Military Institute, about the 1st of August. He will bring to the work great experience, a fertile mind, and an authority, founded upon successful explorations in the broad region of physical research, second to no one in this country, and the Board of Visitors, in recommending this great State work to the co-operation and support of the people of Virginia, feel assured that the public heart will sustain this illustrious son of Virginia in what will be to him and to his associate Professors a labor of love.

"(Signed)

"WM. H. RICHARDSON,
"GEORGE W. BOLLING,
} Committee."

CROP MADE WITH A COW.—There is a man living not far from Danville, who, when the war closed, finding himself without a horse, a mule or even an old steer, hitched up his milch cow and made a good crop. He fed the cow high, and she not only ploughed his land but gave milk for his table.

We get our information from a gentleman who has seen the crop of tobacco made by this enterprising gentleman, and he pronounces it very good.

We like to record instances of this kind, where men show true moral courage, energy and pluck. If all our people were animated with the same spirit, we should soon see a very different state of things from what we now see.—*Danville Times*.

A well informed "reporter" for the *Country Gentleman* seems to doubt whether there is a single pure Leicester sheep in this country. It is an undoubted fact that large numbers of sheep called Leicester or Cotswold are a cross of the two.—*Lawrence Journal*.

Look to your compost heaps. Wage resolute war against briars and weeds. Keep your fence rows and fence corners clean, and insist upon thriftiness and industry in all departments of farming operations.

Washington County, Va.

Mr. Editor,—Did it ever occur to you that this is the first county in the United States which had the honor of being named after the “Father of his Country?” Yet, so it is.

Washington county is the most extreme southwest county of Virginia, with a climate unsurpassed for salubriousness, with a soil adapted to the growth of all the cereals, of grasses to an unlimited extent, its bowels struttled with mineral matter, and possessing advantages in water facilities which few sections can boast of. Yet with these great, immense advantages, our county does not prosper as it should do, and the reason seems obvious to us why it is so—the exorbitant prices demanded for lands. We need labor in this county, intelligent, reliable labor; the same cry comes up as from every portion of Virginia. Our farms are too large, and should be subdivided and disposed of on fair terms to substantial settlers. Our county paper has been for some time, until recently, appropriating a column to advertisements of lands for sale in the hands of our enterprising Land Agency firm; and notwithstanding they have been in the field for several months, and spent effort and means fully to make their business known, and notwithstanding numbers of persons have visited them for the purpose of purchasing, they have succeeded in effecting *only one sale*. Those who have visited our county have expressed themselves as well pleased with what they saw, but when the prices were marked \$25 and \$40 and \$50 per acre, for property but little improved, and much “out of fix,” the result has been to drive them off.

Our people, I am sorry to observe, through the State generally, have not seemed to realize that their chief reliance for resuscitation is in the strength of purpose on the part of our land-owners and our own native born white men who are at present *non-landholders*, to sell to, and buy of each other, as much of the surplus land of the State as thus can be absorbed.

It is needless to enlarge upon this topic; it has been thoroughly discussed, yet we do not learn. God has blessed us with truly a noble heritage, but as yet we are incapable of improving or employing it. May the day soon come when we shall become a *practical, sagacious* people; then will we realize a genuine, solid, material prosperity.

VIRGINIA.

BE not too hasty to outbid another.

Policy often effects what force cannot.

Distemper in Cattle—Remedy and Preventive.

Having heard that many milch cows are dying in and around Richmond of Distemper, (properly speaking Red Water or really bilious fever,) I think it proper to give you, for publication, a remedy I have successfully used, and a preventive I have employed to my perfect satisfaction for the last twelve years.

The remedy is sugar or molasses, either you choose; the sugar as a bolus, the molasses as a drench—a pint of sugar or a gallon of molasses, and the dose repeated at intervals until the animal is relieved or dies. After she is relieved, a tea-spoonful of calomel may be used. During the war I cured a case with a gallon of sorghum molasses. No one need fear to try the remedy; for at the very worst it can only kill the cow, and she might as well die of molasses as of Red Water.

The preventive is more important. I got it twelve years ago from my friend, Dr. R. F. Taylor, of Amelia county. Before that, I had sustained serious losses; since, I have never had a case, except when I carelessly neglected to prevent it. Take a mixture of the following proportions:

Salt,	-	-	-	-	-	1 gallon,
Flour Sulphur,	-	-	-	-	-	$\frac{1}{2}$ pint,
Saltpetre,	-	-	-	-	-	$\frac{1}{2}$ pint,
Copperas,	-	-	-	-	-	1 gill.

Pulverize thoroughly and mix, and keep it where the cow can get to it daily.

I have now on my farm a healthy Devon milch cow that I bought in August, 1866, from Orange, and three more that I bought from Powhatan in the fall of the same year. In July, 1866, I bought four cattle from Fluvanna for beef, and sold them in good order the following winter. In July or August of last year, I bought six beeves from out of the Blue Ridge Mountains, and sold them at Christmas in good order.

I frequently keep cattle for the Richmond dealers from two to four weeks on my pastures in the summer, and have never sent them back a diseased animal.

My stock were out all day and night, and have shelter only when they choose to seek the shade.

It cost me three hundred dollars' worth of cows and three hundred dollars' worth of Devon bulls to find out that there was no preventive efficacy in shade.

I believe my farm is as much subject to Red Water as any place near Richmond, and I ascribe the immunity it now enjoys to the mixture I use. It is kept constantly in the field from the middle of May to the first of November, placed in troughs, each made of two planks mitred, and the cattle get it when they want it. It costs me about two and a half to three sacks of salt the season for cattle, horses and colts, and a large flock of sheep, and as many cattle as may be sent to be grazed.

Of course I no more guarantee a cure or preventive in all cases, from the remedy or the preventive, than a physician would do with his prescriptions.

FRANK G. RUFFIN.

Summer Hill, Chesterfield, July 23d, 1868.

The Sources of our Prosperity.

The minds of our business men are seriously directed to our material affairs. To nothing could they be directed with more profit to themselves and to the community at large. The two great elements of wealth are production and transportation, and when we use the term production we intend it in its largest sense—the production of all human industries. But for the ability to sell and exchange products, industry would stop at the point at which enough is produced to supply the wants of the producer. Transportation is the agency by which sale and interchange are effected. In one word, production and transportation are commerce. Internal commerce is carried on by means of our railroads, rivers and canals, foreign commerce by means of ocean navigation. That community or country which has a complete system of internal improvements by which all its products, great and small, its staple crops, and its truck, garden, dairy and orchard products, its mines and minerals, its timber, its cattle and stock, its manufactures, indeed, all of the productions of nature and art can be conveyed to market, and by which all of its supplies can be brought to the very doors of its people, is in the highest sense prosperous. There is but one other point to be aimed at, and that is so to adjust these lines of transportation as to give them an ocean outlet. Any region that is rich and productive, and can, after supplying the domestic demand, carry its surplus products to a first-class seaport by a cheap, safe and convenient avenue, is in a situation to command direct trade, and direct foreign trade means immediate and unrestricted access

to the markets of the world. It enables the producer and the manufacturer to go into the open markets of the world to sell his products or fabrics at the highest prices, and to purchase his supplies at the lowest, without having to bear the taxes, charges and commissions of a number of middle men, and without being subject to their frauds and breaches of faith.

Richmond, in common with all the other leading Virginia cities, and Virginia, in common with all the other neighboring Southern States, have perceived the importance of controlling our internal improvements in the interests of direct trade, and the imposing convention recently held at Bristol was but the practical expression of that idea. For years past there has been a vague, undefined feeling in favor of direct trade, and there have been many meetings in which its advantages were discussed, but until the present time there has been no real, earnest working energy thrown into the matter. It is interesting to glance at the progress made in it. General Mahone had control of the Norfolk and Petersburg railroad. He saw the immense value of Norfolk as a seaport. He studied the map, and there traced out the region most interested in direct trade. He saw the advantages of consolidation as an auxiliary, and by a persistent industry that nothing could tire, and by a skilful strategy that no arts could baffle, he succeeded in effecting the consolidation under his own presidential management of two other roads with his own road. Having achieved this, he extended his lines, enlarged the scope of his operations, and struck for points further South. The Bristol Convention was a part of the machinery employed, and in that convention we saw the leading interests and industries of four great States represented by men of intellect, energy and influence. This great enterprise thus auspiciously begun and rapidly pushed, will not stop with these four States. There is besides these and other Southern States, a vast country for which Norfolk is the natural and necessary ocean outlet. The States of the West and Northwest will yet be brought to our Virginia Seaboard. There are various avenues through Virginia by which they will be brought hither. Richmond cannot fail to be benefitted by this trade. Much of it will stop here to enrich us, and such as passes through will leave us profitable tolls. We will have all the benefits of direct trade, and all the opportunities we could desire to prosecute the great business of manufacturing, for which we have unrivalled advantages.

In view of all these considerations, we say that it is wise in our business men and in our commercial boards to join in all the move-

ments that are going on. Let them continue to manifest an active interest in our internal improvement companies, in consolidation and in direct trade. It is from these sources that our prosperity is to be derived.—*Richmond Whig.*

Phosphatic Beds Near Charleston.

As everything which gives promise of restoring prosperity to the South, must be of interest to the readers of your journal, I will, with your permission, call their attention to the discovery of phosphates near Charleston. During a recent visit to Charleston, I spent a day in examining their grounds and watching their operations.

Location.

The works of the company are on Ashley river, about ten miles above the city. The wharf is on a bluff about eight or ten feet above high tide. Any vessel which can cross the bar or approach the city can ascend the river to this point, thus affording the company the most ample facilities for transportation. The land approach to this point is by the old Dorchester road.

The Phosphates.

These are found in a stratum, lying from one to three feet below the surface, as I was informed, and ranging in thickness from one to five feet. The area over which the stratum extends is not known accurately, but is certainly large, the company having already secured perhaps as much as thirty square miles. These lands lie on the Ashley river, and between that and the Cooper, and extend towards the city. Much of this is covered by dense primeval forests, which it will require labor and capital to work. Where they are at present at work, is an immense open field, once under cultivation, but now a waste. The lands were difficult to cultivate, and the excess of the phosphates, which were found in the forms of fossils or petrifications, varying in size from the bigness of a pea to that of a man's hand, were gathered into heaps as men gather stones off the cultivated fields to get them out of the way of the plough and hoe!

The way they get them.

The first step is to dig a trench a foot or two wide, cutting through the stratum containing the phosphates, and shoveling every thing out of the trench. The laborer then stands in the trench, and with a shovel uncovers the surface clay or sand, laying bare

the stratum. Then, with a few blows of the pick, the stratum is loosened, and the phosphates picked out with the hand and thrown into heaps. The process is, for all the world, like digging potatoes, and the labor did not appear much more severe. The heaps of phosphates are then taken up in carts by other parties and drawn to the train-road, along which it is drawn in cars to the washers, where it is drawn by machinery up an inclined plane, and dumped into the washers.

The Washers.

There are two of these. They consist of troughs twenty or thirty feet long, perhaps six feet wide, and three or four feet deep, made water-tight. These are placed at an angle of a few degrees, and within them revolve two horizontal shafts, furnished with paddles, on the principle of a screw propeller. The phosphates are thrown into the troughs at the lower end. A strong stream of water is then turned into them, by means of a forcing pump at the upper end, and the shafts revolving stir and lift the mass gradually from the lower end of the trough to the upper, where it escapes through a vent, freed from sand and clay, and ready to be shipped to the manufacturer. It is expected that these washers will each turn out one hundred tons daily. This is sold on the spot, and shipped to Philadelphia as fast as vessels can be procured to transport it. It is much to be regretted that it is found necessary to ship the raw material to a distant city, there to be manufactured and sold to the consumer with so heavy a per cent. added.

The Discovery of this Treasure.

This is not the least interesting circumstance connected with its history. The presence of this deposit had been long known, and its value, in a scientific point of view, appreciated. Nearly twenty years ago, I heard Professor Agassiz, in a public lecture in Charleston, pronounce it perhaps the richest deposit of fossil fish in the world; and that accomplished gentleman and enthusiastic lover of science, Professor Holmes, of Charleston, who is president of the company, had repeatedly brought to the notice of the scientific world the points of interest thus developed. It was also suspected that it contained, in addition to these things, more or less of fertilizing properties, but its great value in this respect was unknown until within the last year. The grounds had been explored by scientific men for scientific purposes; the wheels of the carriage and the hoofs of the horse had been grinding to powder those stones on the public highway for above a hundred years; the share of the

ploughman had loosened them from their resting place and thrown them up only to obstruct the cultivation of the soil; the planters of Carolina had been paying high prices for fertilizers brought from abroad, never suspecting that a superabundant supply of the best in the world was lying at their very doors, and actually, in its present form, encumbering the ground. Perhaps it was a fortunate thing for us that its value was not sooner known. It would probably have been seized by greedy and unscrupulous hands, and we deprived of its advantages. The country is indebted for its knowledge of this invaluable treasure to Dr. N. A. Pratt, Jr., a native of Georgia, a young man of enterprise and indomitable energy, and one of the most skillful and accurate of living chemists. Analysis had been made before, if I am not misinformed, but without satisfactory results. But, after careful examination, Dr. Pratt became convinced of its great value, announced the result of his investigations to those who were capable of appreciating them, and they together set to work at once to develop the mine of untold wealth. All honor and success attend them!

It is impossible to estimate the value of this discovery to the South. The supply would seem to be equal to any possible demand. Its value as a fertilizer, as compared with others in market, I am not competent to state; but is, I am informed, little if at all inferior to the very best. Could you not prevail upon Professor Holmes or Dr. Pratt to give your readers the information desired?

I cannot close without expressing the earnest hope that the company will take the necessary steps at an early day to manufacture the fertilizer on their own grounds—not doubting that the best interests of the company and of the country will be greatly promoted thereby.—“*Viator*,” in the *Southern Cultivator*.

CARROTS FOR HORSES.—Wash the roots clean, and feed about four quarts at once, in addition to oats, or cut feed and hay. There is no danger of feeding a horse too much of either turnips or carrots, provided he receives a good feeding of oats and hay also. The tendency of carrots is to keep the bowels loose. If a horse was required to subsist almost entirely on carrots, his strength would fail, and a large quantity of such green feed might give him the scours. Carrots should be fed in connection with dry feed.—*American Stock Journal*.

POULTRY.—Garlic fed once or twice a week is excellent for colds.



Horticultural Department.

The Virginia Horticultural and Pomological Society.

RICHMOND, VA., July 13th, 1868.

To the Editor *Southern Planter and Farmer*:

The Executive Committee, at its meeting this evening, made further progress in their arrangements for the Annual Exhibition commencing 22d September next. Messrs. John M. Allan, F. Davis, John J. Werth, J. H. Claiborne and C. B. Williams were appointed a committee to prepare the Premium Catalogue, with instructions to report to the next stated meeting of the Executive Committee.

I have the honor to enclose the address of Col. John J. Werth, delivered this evening, on "*Hints to new beginners in Grape Culture, and reflections upon the policy and economy of the general cultivation of Fruits as an element of subsistence for our people.*"

In transmitting this valuable contribution to native Horticultural literature for publication in your valuable journal, I avail myself of the occasion to say that it was listened to by us with the profoundest attention and interest, and cannot fail to entertain and instruct your readers.

Very respectfully, your obd't serv't,

J. C. SHIELDS,
Recording Secretary.

HINTS TO NEW BEGINNERS IN GRAPE CULTURE IN VIRGINIA, AND
REFLECTIONS UPON THE POLICY AND ECONOMY OF THE GENERAL
CULTIVATION OF FRUITS, AS AN ELEMENT OF SUBSISTENCE FOR
OUR PEOPLE.

Availing myself of the latitude, kindly conceded to me, to select my own subjects for the consideration of the Society this evening, I have concluded that I could not better appropriate the opportu-

nity, than by submitting a few remarks under the caption just announced.

The signs of the times seem to forecast a period of great progress in the culture of the grape in our State, for conversion into wine; and there are not wanting high considerations—social and political—to prompt us all not only to hope for, but to contribute what we may, every one in his sphere, towards its eminent success.

Correct and generally diffused information is an indispensable condition of this success; for although our people have planted grape vines, on a smaller or larger scale, ever since the settlement of the country, there has been, in our section at least, very little progress—none worthy of note—in organized practical grape culture. It is, therefore, not unreasonable to presume a very general want of and desire for such instruction and advice as new beginners need.

Postponing to a future occasion the practical details of Grape Culture, I propose to offer this evening, for what they are worth, a few general observations, in the way of advice and of encouragement, to those who are entering upon this new and interesting field of operations.

First of all, then, I would impress it upon those who propose to prosecute the culture of the grape for profit, whether by conversion into wine, or by the sale of the fruit, that it is indispensable that the operation should be (so far as its necessary requisitions for capital, attention and labor are involved,) *the paramount interest of the operator*. Whatever it is expedient to do in its prosecution, must be faithfully and thoroughly done, and promptly at the proper time.

If the vineyard is considered a secondary interest, and its requirements are held subordinate to seeding wheat, or planting corn, or harvesting either, or to any other engagement whatever, the proprietor must not expect, for he certainly will not secure, even tolerable success.

I do not mean to say that grapes cannot be successfully raised by farmers or gardeners, nor in connection with any other occupation. But I do mean to say, emphatically, (if the business is established with a view to a reasonable profit from its pursuit,) that its requirements must be, at all times, acknowledged as imperative; and the capital, and the watchful attention, and intelligent superintendence, which are indispensable, must be freely and promptly appropriated to meet the demand. It may not be amiss, also, to caution those who propose, without previous experience, to enter into the business, against the general tendency to underrate both the outlay in money

and the information which are essential to success. There can be no timely success—so early as to meet the even reasonable estimate of the beginner, if he is stinted in the means commensurate with his scale of operations. If he is tempted to purchase second or third rate vines, because they are less costly (*not cheaper*), and his means seem to forbid a more liberal outlay—if, instead of providing intelligent superintendence, he commits the planting and cultivation of his vineyard, even under the most precise and judicious directions, to stupid negroes, who, however well inclined, are insensible of their ignorance, and not comprehending the why and the wherefore of their employee's instructions, will not carry them out a moment longer than they are closely watched—if he denies himself books and horticultural papers, through the pages of which he may avail himself of the experience of others—if he cannot spare the time, or is unwilling to give the necessary attention, to make himself acquainted with all of the details of vineyard management, so that, if he does not directly superintend his operations, he can judge of the qualifications and fidelity of his subordinates—if these obstructions to success are probable contingencies, he must not hope for its achievement until they are provided against.

Another caution which I feel no hesitation in urging upon beginners in the business, is against involving themselves at the start in extensive operations. Most men who have courage to engage extensively in any new and expensive operation, are apt to have and to follow their own theories, without as much regard for the experience of others as would be in many cases prudent; and self-instruction, through our own experience, unlike other commodities, is more cheaply purchased at retail than wholesale—on a moderate than on an extensive scale. Moreover, there is as yet no sufficient satisfactory experience to guide us in the selection of varieties for wine-making in Virginia on an extensive scale, and at a low cost of production. Our present unmistakable policy is to be found in the establishment of small, well-managed vineyards, in every section of the State—a portion of each vineyard to be appropriated to the culture, on probation, of such varieties as have yielded the best results in fruit and wine anywhere, in however few cases, in a less congenial climate. We may thus prove that some varieties that possess fine wine-producing capacity, but fail in most localities, North and West, to develop and mature their fruit in sufficient quantity and with sufficient certainty, will find in many localities in our State the requisite conditions for the full development of their best characteristics. There is a sufficient list of such varieties of

native and hybrid grapes now established, to furnish an abundant field for interesting and hopeful experiment; and in view of the very valuable qualities of some of the varieties, which are nevertheless very fastidious in their requirements of soil, and climate, and particular location, it will devolve on each vineyardist to experiment on his own grounds, with his own selection of varieties from this list; and prove, for himself, which of them encourage extended cultivation on his particular location. We must not reject the Herbemont, and Delaware, and Iona, and Catawba, which have each, in their chosen locations, produced highly satisfactory results, both in fruit and in wine, because they have each more frequently failed in localities in which they were not at home. We must rather endeavor to find homes for them, even should it be only on gravelly slopes or disintegrated rocks. Nor will it be wise, on the other hand, to permit too much of our space to be appropriated to varieties which are attractive merely from the certainty and abundance of their crops, but which have as yet not established their capacity to produce wine that will meet the public taste. The Concord and Clinton and Hartford Prolific represent this class.

And now, as my purpose is merely to caution, and not to discourage new adventurers in grape culture, I will say in that behalf that I consider it a field in which all, who labor intelligently and advisedly and industriously, may surely harvest full sheaves. We have our own invaluable Norton "to the manor born," with an established reputation of forty years, of almost invariable production of fair crops of fruit, capable of being converted into wine that will find a ready market wherever wine is drunk. This, for a fixed base of operations, places us on vantage ground not to be underrated.

In seeking ground for extended operations, our attention is naturally attracted by a grape which stands at present unrivalled in the regularity and profuseness of its crops of beautiful and luscious grapes, without the least fastidiousness as to location or season, defying rot and mildew, and all other diseases which the grape is heir to, and exhibiting a development under our Southern sun which renders it scarcely recognizable as the Concord of the Northern States. May we not hope, either that our climate, or the judicious admixture of some more saccharine grape in the press, will enable this variety, so valuable in other characteristics, to establish with us an unquestioned reputation (which, unfortunately, it does not seem to enjoy elsewhere,) as a wine-making grape also. The Ives, another hardy, healthy, and free-bearing variety, seems to be getting the

better of the unfavorable prognostics against the character of its wine; and a specimen sent out by Longworth's wine-house, in Cincinnati, certainly commends the grape to a fair trial by all. We have also a numerous list of grapes which have proved their capacity for the production of wine of various grades—all marketable, some very fine—some of them healthy everywhere, and all of which will doubtless prove so in very many localities in our more favored region. The Alvey, Clinton, Cynthiana, Creveling, Delaware, Cunningham (a native of our State), Iona, Mottled (a new and highly promising seedling of the Catawba), Herbemont, Scuppernong, Maxataung, Rogers' Hybrids Nos. 1 and 4, occur to me as belonging to this list. Perhaps the Catawba (now generally discarded on account of its great tendency to mildew,) may find a congenial home along the slopes of the Blue Ridge. With such a list to commence with—our protracted season for the perfect ripening of the later varieties, such as the Norton, and our more genial climate for the perfect development of all—the endless diversity of soil which the various sections of our State present, and the abundance and comparative cheapness of timber in most sections, for enclosures and trellises, offer great inducements to our people to adopt the culture of the grape as a highly profitable, if not the most profitable appropriation of land, capital and labor within the reach of moderate means.

But while it is indispensable, under our present discouragements, to offer directly profitable results, in money actually received, to stimulate the zealous pursuit of any enterprise whatever requiring money, yet we would not be at a loss to find important encouragement for the cultivation of all fruits, small and large, for home consumption, by almost all classes who till the soil, if their value could be rightly appreciated as an economical and healthful, and may I not venture to add, an elevating element of subsistence. There is good reason to believe that if our Southern people could be induced to limit their consumption of animal food, and proportionately increase their consumption of fruit, there would be a general prevalence of better health and more elastic temperament. It can scarcely have escaped the observation of those who have mingled with other nations of the earth, at their own homes (or where they were congregated in sufficient proportions on other soils to encourage the indulgence of their native tastes), that those communities of mankind who habitually subsist, to a large proportion of their diet, on animal food, are strikingly deficient in that activity and buoyancy and elasticity which mark the character of the vegetable and

fruit-consuming classes. The difference is not all, nor nearly all, due to climate, as is generally supposed. The Spaniard and the Frenchman, occupying very similar climates, are very different in their temperaments. The former is the grosser feeder, and lacks the activity and elasticity of the latter. The Irish consume less meat than the English; and here again we find the vim and buoyancy of character largely predominant in the vegetarian class. The Mexican and Central American have lived on beef until they are a mass of immobility, and have not the energy to pay the slight tribute of labor which their teeming soil demands for the abundant production of fruit and vegetables. And so on, through the various nations of the earth, I have no doubt that careful enquiry would establish the rule, that energy and activity and elasticity of temper, and, consequently, a higher grade of rational enjoyment, are marked characteristics of those who subsist mostly on the lighter diet of fruit and vegetables.

But beyond this, there is an urgent appeal, just now, arising from our peculiar condition and surroundings. We are not raising anything like meat enough, within the present arbitrary restriction of our State lines, to subsist our population; and until something happens to enable the white men of the South to check the universal spirit of plunder which pervades the negro population, it is vain to hope that we shall increase our domestic production of animal food. Here, then, we find a market at every man's door for fruit and vegetables, to substitute the enormous consumption of meat, purchased from beyond our borders. And what more certain, more economical, more healthful elements of subsistence are to be found than are furnished under the various modes of preparation, which secure to us throughout the year all the large and small fruits of our climate, and which it is within the reach of all who have a few acres of land to cultivate and preserve.

An eminent horticulturist of Massachusetts has practically found that pears, by carefully selecting a rotation of kinds as to their period of maturity, may be placed on the table every day in the year, in their naturally ripened condition. But this extreme success is not necessary. It is only important to preserve, in some form, the fruits of the summer and fall, until they are succeeded by the productions of the returning spring. October finds us gathering grapes and apples and peaches and pears from the branch; and May renews the rotation with the strawberry crop.

And as far as the small fruits, and the preservation of all kinds is concerned, we find an additional inducement to their culture in

the adaptation of women and children to fill most of the employments involved in the pursuit. There seems to me, therefore, no sufficient reason why the small cottager should not in Virginia, as well as in France, surround himself with these healthy and delightful products of our soil; and high considerations of patriotism suggest that every inducement of precept and example, encouraged by the gratuitous distribution of plants and vines and cuttings, in a small way, should be held out to this class of our people, to incite them to this branch of horticulture.

If there is anything in these considerations, they present encouragement to us to devote a share of our time and attention and labor to the culture everywhere, and by all, of some varieties of fruit, without stopping to enquire whether they will pay as an article of trade, if we can economically consume them at home. I commend this view of horticulture to the earnest consideration of our Society; and trust that while we are active in seeking out and distributing information to encourage the vigneron and fruit-grower for market, we shall not forget by "line upon line and precept upon precept," to enforce upon our people of all conditions and everywhere, to plant and carefully cultivate the fruits best adapted to their wants and appliances.

JOHN J. WERTH.

Editorial Correspondence.

Editor Southern Planter and Farmer,—To be in New York is truly to be in the centre of the continent, so far as trade, finance and commerce are concerned. Here everything is gathered together from all parts of our own country, and a vast deal from other quarters of the globe. If you want to buy land in Texas, or bear-skins in Alaska, it can be done in New York, and profitably done, provided you are fortified against all kinds of tricks and humbugs; if you are not guarded, however, the chances are against you. Not that honest dealers here are rare, but because dishonest ones are so numerous, that it is necessary to be watchful and discerning.

Notwithstanding there is much to condemn in this great city, still there is so much to admire and emulate, that were I to moralize, your magazine would hardly contain the impressions of a week's sojourn. Leaving all else to other correspondents, let me give you a glimpse of Horticulture and Pomology, as represented and developed here and in the suburbs. The first place visited was Central Park. Magnificent in its proportions, and beautiful in design, it is worthy of the metropolis; but in driving around, a thought sug-

gested itself, which, if acted upon, would probably add both to the use and beauty of the grounds. It is this: in the absence of a Botanical garden, might not the Park be made a receptacle for handsome new evergreens and deciduous trees? and might not the Gothamites soon have a collection of the rarer trees and plants, which would equal, if not surpass, some of the European pleasure-grounds? So far, little attention has seemingly been paid to this. The grounds are well planted, but with common plants, and one finds nothing here but may be seen in any nursery or lawn.

Leaving the Park, let us run over to Flushing, and look at Parson's Rhododendrons and Azaleas, just now in full bloom. A thousand specimens of each, loaded with flowers of every color, tint and variegation, is a truly gorgeous spectacle, and well compensates for the two hours' ride in the rain encountered upon the return. Messrs. Parsons & Co. are cultivating largely these two plants, and are most successful. I have never seen a finer show of a bloom than theirs; and notwithstanding the superior adaptability of our climate to the production of these flowers, I doubt whether we can excel them.

Back to New York, across the city and Hudson river, and we are at South Bergen, rambling through Peter Henderson's green-house (pits, as Mr. Buist styles them), luxuriating in a mass of young flowering plants, which for quantity remind you of an old Virginia tobacco field; but in Mr. Henderson's opinion, they are not enough to supply the demand, for he is now busy building a new green-house, to be of the very modest length of one hundred and fifty feet. So much for flowers.

About fruit, little can be said; it is too early for strawberries, and although the markets are filled with them, they all come from the sunny South. At a strawberry exhibition held at Whitlock's, 245 Broadway, on Thursday, June 18th, not a ripe berry was exhibited. Several plates of Wilson's Albany, Jucunda, Napoleon III., and Downer's Seedling, partially ripe, were on the tables, and although the exhibition was not a success, owing to the lateness of the season and backward condition of vegetation, the discussion of the Fruit-growers' Association, which succeeded it, was very interesting. One point of interest developed by the discussion was, that in the opinion of the majority of the fruit-growers present, some of them large Jersey producers, it was more profitable not to cultivate strawberry beds than to cultivate. Their theory was that it requires extravagantly high culture to secure more than one or two good crops from a strawberry bed, and they reasoned that it

was cheaper to grow new beds than to cultivate thus highly the old ones. The plan which many are adopting is to plant the bed in the spring, keep it clear of weeds the first summer, and then let it run to weeds the next season, taking off a crop the second and third summer, the latter taken from among the weeds. Then plough the vines under, and by planting every spring a new bed, a constant succession is maintained. It was the experience of by far the larger portion of those present, including Dr. Hexamer and Mr. A. S. Fuller, that this was the most profitable. This opinion seems very plausible, and we are now testing both methods of cultivating.

Returning from New York, Baltimore must not be passed without a visit to Messrs. Corse, at Clairmont nurseries, who always have a fine assortment of well grown stock. From there over to Greenmount Cemetery is but a short drive, which is well repaid. The artistic decorations are splendid; but neither this nor Laurel Hill, at Philadelphia, nor Greenwood, at New York, compare with our Hollywood in natural beauties.

Without time to take a glance at Druid Hill Park, Baltimore is left and Richmond is reached, and at the same time the termination of a busy trip, which afforded little time for general observation.

M.

The Theory of the Editor of "The Gardener's Monthly," that Evaporation is Excessive in Cold Weather, &c., Controverted.

Among the editorials of the *Gardener's Monthly*, there appears an article which discusses the mode and manner cold acts in killing plants exposed to its influence. The talented Editor of that excellent horticultural magazine controverts the long received opinion, that frost, in freezing the sap, bursts the cells, ruptures the sap-vessels, and consequently kills the plants. He contends that the theory of cell-bursting is fallacious, and that the fact of plants being killed by cold is exclusively owing to the destruction of the equilibrium, which must necessarily exist between the roots and the vascular system of the stem and branches to supply an adequate quantity of moisture; or, in other words, that "*evaporation*," which it is pretended "is excessive in cold weather," causes the liquid materials which sustain the vitality of the plant "to go out faster than they come in."

We shall endeavor, in as few words as possible, to criticise the critic; and if, in recurring to first principles, we shall succeed in overturning the argument of the gentleman, we hope he will not

consider us as intruding upon his peculiar province, where his authority is deservedly held in high repute.

Locke very properly says, that in order to discuss a metaphysical question with clearness and precision, the first thing that is necessary is to define terms. What is true in metaphysical discussions, applies with no less force to every other kind of argument. Let us understand, then, what is meant by evaporation, a word the gentleman uses to give form and substance to his theory. It is well known that evaporation means the conversion of water or other liquids into vapor by the expansive power of heat; the particles thus expanded being made lighter than air, are separated from the mass of which they form a part, and ascending, they remain suspended in the upper regions of rarefied air in the form of clouds. If this statement is correct, and no one can controvert it, it conclusively follows that evaporation, instead of being excessive during winter or cold weather, when rains or snows are abundant, and heat is wanting to produce the rarefaction of evaporating liquids, is, on the contrary, far more excessive during summer or hot weather, when plants are frequently suffering from want of rain, and the heat of the sun rapidly evaporates the liquid materials by which plants are nourished. Steam is really nothing more than the visible vapor of water; and who was ever so silly as to attempt to supply an engine with steam by the *excessive evaporating process* brought about by the application of cold. The facts, then, as they exist in nature, and which must be recognized even by the most observing, are in direct contradiction with the gentleman's theory, that plants are killed by cold, because "evaporation is excessive in cold weather." And according to him, it necessarily follows from the *excessive cold-weather evaporation*, that "there is not enough moisture to fill the cells"—"when it goes out faster than it comes in—they die." While we confess that the gentleman's conclusion is correct, his premises are not only false, but absurd; and consequently his reasoning, like a house of cards, falls to the ground at the slightest touch. But the gentleman, in support of his opinion, adduces the fact, that last winter the temperature of the atmosphere was not very low, but the winds were very high, "and yet," he says, "plants never suffered so." Unfortunately, the prop of the gentleman's argument is too weak to support it, for it is well known that in our climate, when during the winter months the temperature of the atmosphere is not low, the air is filled with moisture, which is not unfrequently followed by rain and snow; and in that state of the weather the winds

are hardly ever high ; while, on the other hand, when the winds are high, the atmosphere is dry and cold ; and from this it inevitably follows that a moderate temperature of the air precludes high winds, and high winds are the correctives of a moderate temperature. They are like fire and water—they cannot exist together. Upon this showing we are compelled to use the gentleman's evidence against himself. As we have already stated, during the winter season, in moderate temperatures, the atmosphere, as well as the ground, is moist, and plants get an abundant supply of moisture, not only from the root, but by external absorption ; and when in this state high winds suddenly supervene, and the atmosphere is rapidly cooled below the freezing point, the particles of the circulating fluid of plants, which require the utmost tenuity for their equal and continuous distribution, is measurably interrupted or impeded, and the plant dies, partly from want of nourishment, and partly by the sudden abstraction of heat, which is increased by the dessicating action of the wind.

The main cause why plants are killed by cold is the sudden abstraction of heat. Heat is as much an element of vitality of plants, as it is of man and animals. Some plants require a greater supply of heat to sustain their vital functions and to advance their growth and development than others. The palm and the banyan tree could not flourish where the spruce pine attains its utmost perfection. The organization of certain plants, like that of some animals, enables them to resist the external influence of cold better than others not endowed by nature with the power of resistance. But that all species of plants require a certain quantity of vital heat to sustain their individuality, admits of no doubt ; and if a plant is not supplied with heat by the atmosphere, but on the contrary, if excessive cold abstracts its own vital heat, until it is exhausted of one of its most important elements of vitality, it naturally dies, like a man or an animal exposed to similar atmospheric influences.

While we do not fully agree with the theory that cold bursts the cells and the sap vessels, and by this means causes the death of plants, we do believe that the circulation going on in the vascular system is obstructed by cold, by depriving the circulating fluid of its tenuity, and by partially solidifying it by means of its contracting power.

If the gentleman had only substituted "*the going out of heat*," for the word "*evaporation*," and made use of the word "*heat*" wherever the word "*moisture*" occurs, he would have hit the nail upon its head, and his article would have been a capital one, well deserving the attention of the farmer and the agriculturist.

A. FEATHERMAN.

Cresylic Soap—A Specific for Destroying Predacious Insects, and a Valuable Deodorizer and Disinfectant.

Mr. Editor,—I observe in your April number that a correspondent complains of bugs amongst his melons, and that you recommend a kerosene soap.

We are finding in *cresylic soap* an infinitely more active, effective and enduring remedy. In fact, the wonder seems to be how we ever before got along without it!

Kerosene is only useful in its effect upon insects in proportion to the quantity of cresylic or carbolic acid or creosote it contains.

In every case in which cresylic soaps have been used here, to prevent or destroy insects or destructive fungi, as the rust or smut in wheat, &c., although in these and in grape mildew but partially tried—in scab and foot-rot in sheep, &c., &c., and generally as antiseptics, disinfectants and deodorizers, they have proven invaluable. As I have spoken of them several times, permit me to quote recent editorials from two of our leading papers—not to puff these soaps, but to put others in the way of benefiting by what has been so useful to us.

The Houston *Telegraph* of 20th inst. says: “We believe the cotton worm can be destroyed, if a general and faithful effort is made. The destroying agent is undoubtedly the newly-discovered *cresylic soap*, which has proved fatal to all insect life, so far as we have been able to try it or to hear of its being tried.” “We mention this cresylic soap so often because it has proved of so much advantage to us. We have not the slightest interest otherwise in it.”

The Galveston *News* of same date says, after recommending its use generally: “Private individuals should use the solution of this soap, by sprinkling water-closets and all offensive places, and forth-with all disagreeable odors will be removed.”

THOMAS AFFLECK.

Glenblythe, Washington county, Texas, June, 1868.

They do things out West on a somewhat magnificent scale. A prairie farmer in Illinois advertises for contractors to break up four thousand acres prairie land for three dollars an acre—houses and lumber for stables furnished. This is farming on a scale hardly appreciated in this section of the country. The advertiser, however, is the owner of a forty thousand acre farm.

By doing nothing we learn to do ill.

Household Department.

Domestic Receipts.

TOMATO WINE.—Take *ripe* tomatoes, cook them just enough to set the juice to flowing freely. To every gallon of juice add one gallon of water. To every gallon of the above mixture put three pounds of sugar (white or brown, as preferred). Set it by to ferment. After the lees sink to the bottom of the vessel, rack off, and add a little more sugar, if necessary. Clarify after the second fermentation, with isinglas or white of eggs, as you may prefer.

The above is a copy of a recipe given me by a lady of Lynchburg—now no more—who took great interest in everything of the kind. At the same time she gave me recipes for blackberry, currant and grape wine, in making of all which she excelled. I have partaken of three of these, and must say, that whilst I do not profess to be a judge of wines, they were, in my humble opinion, the best ever made in this State. That of the tomato was exquisite both as to color and taste. It is proper to add, that with scarcely any variation, she made the blackberry, currant and tomato wine by the same recipe. That of the grape was different. I have made this note that you may see how good I think the above recipe, and make such comments as you may deem proper. I shall try it this year, if nothing happens to prevent.

To MAKE GOOD BREAD.—Take one pint of flour; pour on boiling water enough to make a paste; beat till nearly cold, then add one even spoonful pulverized alum, and one heaping teaspoonful brown sugar; keep covered till it rises; then add corn meal enough to enable you to roll it out; then cut into cakes rather larger than a Mexican dollar (if any one remembers how large that is), dry in the shade and keep from flies. They will keep an indefinite time without souring. When wanted for use, for every quart of flour dissolve one cake of the leaven, and mix with the flour in the usual manner, using cold water. When mixed, place your loaves in a pan to be baked, and set them by to rise, which will soon be done; then bake in the usual manner; and sweeter bread I never saw. This has been tried in my family many, many times, and without a failure.

NO NAME.—The yolks of five eggs, and one cup of sugar mixed a little; add one and a half cups of sugar, one cup of butter or lard, one cup of milk, two teaspoons of yeast powder. Beat the whites of the eggs to a stiff froth and put in last; flavor with lemon; flour as thick as pound cake.

COCOANUT CAKE.—One bowl of sugar, one bowl of flour, one cup of butter, six eggs, one teaspoon of soda, two of cream tartar, one grated cocoanut.

LEMON PIES.—Two large lemons, five eggs, one pound of sugar, one pint of milk or water, two table-spoons of corn starch—this makes two pies—baked in a rich under crust without any upper.

SOAPING CLOTH FOR SEWING.—We often wish to make garments of new bleached muslin before washing the fabric, and the starch contained in it makes it difficult to do so. To obviate the difficulty, take a bit of hard soap and shave it down to an edge, and run it along the edge of the cloth you wish to sew, and you will find it will have a magical effect. It is equally efficacious if you are to use a machine.

TO PURIFY A SINK.—In hot weather it is almost impossible to prevent sinks becoming foul, unless some chemical preparation is used. One pound of copperas dissolved in four gallons of water, poured over a sink three or four times, will completely destroy the offensive odor. As a disinfecting agent, to scatter around premises affected with any unpleasant odor, nothing is better than a mixture of four parts dry ground plaster of Paris to one part of fine charcoal by weight. All sorts of glass vessels and other utensils may be effectually purified from offensive smells by rinsing them with charcoal powder, after the grosser impurities have been scoured off with sand and soap.—*Ger. Tel.*

CURE FOR CHAPPED HANDS.—Take 3 drachms of gum camphor, 3 drachms white beeswax, 3 drachms spermicetti, and 2 ounces olive oil. Put them together in a cup on the stove, where they will melt slowly and form a white ointment in a few minutes. If the hands be affected, anoint them on going to bed, and put on a pair of gloves. A day or two will suffice to heal them.

PICKLING PLUMS.—Best vinegar 1 pint; sugar 4 pounds; plums 8 pounds; spices to taste. Boil them in the mixture till soft; then take out the plums, and boil the syrup until quite thick, and pour it over them again.

THE SOUTHERN PLANTER AND FARMER.

RICHMOND, VIRGINIA, AUGUST, 1868.

TERMS OF SUBSCRIPTION AND ADVERTISING.

SUBSCRIPTION One Year,..... \$2.00

ADVERTISING.

1 square, 10 lines or less, one insertion,.....	\$ 1 00	$\frac{1}{4}$ page, one year.....	\$ 35 00
1 square of 10 lines for six months,.....	6 00	$\frac{1}{2}$ page, six months,.....	35 00
1 square of 10 lines for one year,.....	10 00	$\frac{1}{2}$ page, one year,.....	60 00
1 page, single insertion,.....	15 00	1 page six months,.....	60 00
$\frac{1}{4}$ page, six months,.....	20 00	1 page, one year,.....	100 00

PAYMENTS.

Subscriptions—in advance. Advertising—annual—quarterly in advance. All others in advance

Editorial Department.

Our Club Arrangements.

We furnish the following Journals at club rates:

The Richmond Christian Advocate (weekly), and So. P. & F., for \$4 50 a year
The American Farmer, Baltimore, (monthly), and So. P. & F., for 3 50 a year
The Land We Love (monthly), and So. P. & F., for . . . 4 35 a year
Moore's Rural New Yorker (weekly), and S. P. & F., for . . . 3 75 a year
The Cultivator and Country Gentleman (weekly), and So. P. & F., for 3 75 a year

TIME OF PLANTING STRAWBERRIES, PAGE 429.—The reader will please read “March,” instead of “May,” as erroneously printed.

THE SURVEY BOARD AT WASHINGTON COLLEGE has appointed Major Jed. Hotchkiss Topographical Engineer, and immediate steps will be taken to prepare and publish a series of maps of the several counties and districts of the State of Virginia. There is ample material already in hand for the inauguration of this work.

By order of the Board.

R. E. LEE, President.

Address Major JED. HOTCHKISS, Staunton, Va.

Notice to Correspondents.

Anxious to bring out our paper punctually on the first of the month, we ask it as a favor of our generous correspondents to furnish us with their valuable communications as early as they can in the month preceding their intended publication in the succeeding issue of the *Southern Planter and Farmer*.

Quantity of Seed Sown Per Acre, Broadcast.

Lawn Grass, . . .	2 to 3 bushels	White Clover, . . .	5 to 6 pounds
Timothy, . . .	7 to 12 pounds	Blue Grass, . . .	12 to 25 pounds
Herds' Grass or Red Top, . . .	12 to 16 pounds	Orchard Grass, . .	15 to 20 pounds
Red Clover, . . .	8 to 10 pounds	Rye Grass, . . .	12 to 15 pounds

The Song of the Summer Cloud.

NATURAL PHILOSOPHY POETIZED AND MORALIZED.

BY REV. T. S. W. MOTT.

I come, I come, from my mountain home,

I come from the vale and the glen,
With stores caught up as along I roam,
To scatter them downward again.

I go abroad on my wayward road,
In search of the nauseous and sweet;
And waft them over the earth abroad,
To lay them where'er it is meet.

I imbibe the dew from the floret's cup,
I gather from all as I go—
From pois'nous blooms with the bee I sup,
And I drink of the river's flow;

I take from pools and the stagnant fen,
And the brine and scum of the sea,
From baneful weeds and the stenchy pen,
And the mould'ring trunk of the tree;

And mingling, I mix them all in one,
The pure with the noxious and vile,
And send them down in a wizard boon,
To cover the earth with a smile;

For in my course as along I rush,
And dribble all down on their face,
The rose's blush takes a brighter flush,
And the lilly a sweeter grace;

And the dahlia rears her queenly head
More gracefully still as I flow,
And loftiest trees and the humblest weed
More beautiful flourish and grow.

I touch the sod, and its grass grows green,
And corn swells more full in the ear;
And brighter leaves on the oak are seen,
That late was so drooping and sere.

And more and more as my store supplies
The parched and thirsty land,
New beauties rise to the gazer's eyes,
As at touch of some magic wand.

I launch my bolts as along I lower
Over fields and the forests wide—
I rend the pine in my fearful power,
And shatter the oak in its pride;

But where the stroke in my wrath descends,
 And blighting and ruin are seen,
 Some richer blessing in time attends,
 In lieu of the loss that has been.

Hence, mortals! learn in your faithless mood,
 These beautiful truths, if you will:
There's ever some trace of ill in good,
And some mixture of good in ill.

Some sweetness from bitter may be press'd;
 Some foul in the fairest may lie:
 As poison lurks in the Jasmine's breast,
 Though winning her smile to the eye;
 And the richest boons that ever fall
 In the pathway by mortals trod,
 Are sickness, pain, and the tears of gall,
 That lead them through trials to God.

Garden Farm, Catawba county, N. C., July 4, 1868.

Immigration—Burksville Convention.

We copy from the Richmond *Whig* the following resolutions unanimously adopted by the above named Convention, which we earnestly recommend to the careful consideration and prompt action of those for whom they are intended:

1. *Resolved*, That it is manifestly the duty and interest of the people of Virginia and their neighbors of North Carolina to promote by all means in their power the immigration of farmers, manufacturers, merchants and laborers, and to that end we appeal to our fellow-citizens to sell or lease, at reasonable prices, and on easy terms, and at the earliest practicable period, such lands as they can not now profitably cultivate themselves, to all who may be inclined to purchase or lease and settle amongst us.

2. *Resolved*, That to encourage the immigration of foreigners who may not speak our language, or for other reasons may wish to settle in colonies, it will be wise policy for the land owners of the different counties, as far as practicable, to offer for sale or lease, on reasonable terms to immigrants, as large and compact bodies of lands as can be secured together.

3. *Resolved*, That we appeal to the landholders of Virginia and North Carolina not to forget the claims of their own native sons, but offer to all such every practicable means to encourage them to habits of industry and usefulness.

4. *Resolved*, That we would also embrace with delight the returning sons of Virginia and North Carolina, who may have become dissatisfied with the existing condition of the more Southern States.

5. *Resolved*, That we, representing a large constituency of Virginia and North Carolina, with unaffected sincerity and cordiality, invite immigrants from the people of the other States of the United States and of Europe to settle in our midst and to co operate with us in restoring Virginia and North Carolina to prosperity and happiness, and in securing continued progress and advancement; and we make this our emphatic declaration that citizens from other States can find homes in Virginia and North Carolina where all proper regard will be rendered to their feelings and their opinions and to the comfort of their families, and the assertion that individuals of the Northern States cannot reside here in safety and comfort is a slander upon our people.

6. *Resolved*, That the formation of county or local land companies under similar charters will greatly facilitate the sale or lease of lands and promote immigration; and we earnestly recommend the immediate organization of such companies, and suggest the form of charter (that can be granted by the circuit courts while in session or by the judges in vacation,) as embodying all the es-

sential features of such a scheme, both as regards the operations of the separate companies and their combination and co-operation, and we urge upon all the counties here represented and such others as may unite in the movement the adoption of measures to organize their respective companies without delay; and to facilitate this object, delegates to this convention are hereby appointed committees in their respective counties to carry out this resolution.

7. *Resolved*, That the railroad companies of this State and North Carolina are earnestly appealed to, to extend every facility in their power, but especially by reduced rates of fare, to encourage travel in our midst of all persons who desire to examine lands with a view of purchasing, or leasing, and to give the benefit of such reduction to their families when removing to occupy lands purchased or leased. And in the removal of colonies when they come in a body to settle on the line of any railroad in the State, we commend the example of the R. & D. R. Co., to forward such colonies in such special immigrant trains free of charges to their destination.

Believing that in this practical age of enterprise and activity, the opening of railroad lines where they do not exist in our State would prove to be one of the most efficient auxiliary means of promoting immigration that could possibly be created, therefore,

Resolved, That the construction of a sufficient number of railroads to insure speedy and cheap transportation to and from market is a sure means of inducing intelligent and energetic men to settle in our States.

Resolved, That the construction of the Norfolk and Great Western, the Chesapeake and Ohio, and Air Line railroads would be of incalculable advantage to our agricultural, mineral, manufacturing and commercial enterprise, and would make Virginia and North Carolina the most desirable field for men of energy and enterprise in every department of industry.

Book Notices.

Agriculture of Massachusetts. By C. L. Flint. We are indebted to the kindness of Mr. E. B. Welch, of Cambridge, Mass., for a copy of this valuable book. It is "the fifteenth Annual Report of the Secretary of the Massachusetts Board of Agriculture, together with Reports of Committees appointed to visit the County Societies," &c. It contains an amount of information rarely met with in the same number of pages. The discussions before the Board of Agriculture, conducted by such men as Prof. Agassiz, Col. Wilder, and others of known ability, and the essays read during the session of the Board, are of the highest interest. The amount of practical information to be gained by such discussions cannot be over-estimated. Let our people bestir themselves, and organize County Societies auxiliary to our State Society as the first step in a forward movement in agriculture.

The Percheron Horse. This is the title of a neat little volume translated from the French of Charles Du Huys, from the enterprising publishing house of Messrs. Orange Judd & Co., 245 Broadway, New York.

As a history of the origin and propagation of this remarkable race of horses, it possesses much interest, especially as their recent introduction into Maryland and Virginia renders an acquaintance with their adaptation to the varied uses of our people desirable. We have recently seen some fine specimens of pure bloods, and crosses with the better class of our country mares, at "Bellmont," the stock-farm of our friend, Slaughter W. Ficklen, Esq., near Charlottesville, Va., and we are convinced that the Percheron is the work-horse for our people. We could but observe how remarkably the type of the sire was preserved in his progeny by the country mares.

The Land We Love. The August number is rich in interest, and we again

commend it to the liberal patronage of our friends. We club with this journal, as will be seen by reference to our notice under our editorial head.

The American Farmers' Magazine, published by Charles S. Burnett, Esq., Cincinnati, Ohio, is the title of a new journal just received, and which we cheerfully give a place amongst our exchanges.

The Leonard Scott Publishing Company, New York. We acknowledge the reception of Blackwood for July, and the latest North British Review, both up to the standard, and most welcome visitors. We call attention to the publishers' liberal terms:

For any one of the Reviews,	.	.	.	.	.	\$4 00 per annum
For any two of the Reviews,	.	.	.	.	.	7 00 per annum
For any three of the Reviews,	.	.	.	.	.	10 00 per annum
For all four of the Reviews,	.	.	.	.	.	12 00 per annum
For Blackwood's Magazine,	.	.	.	.	.	4 00 per annum
For Blackwood and one Review,	.	.	.	.	.	7 00 per annum
For Blackwood and any two of the Reviews,	.	.	.	.	.	10 00 per annum
For Blackwood and three of the Reviews,	.	.	.	.	.	13 00 per annum
For Blackwood and the four Reviews,	.	.	.	.	.	15 00 per annum

The Mothers' Magazine, edited by Rev. D. Mead, No. 5 Beekman street, New York, is received, and placed on our exchange list.

The Sorgo Journal and Farm Machinist, is the title of a quarterly published by Messrs. Blymyer, Norton & Co., Cincinnati, Ohio, and devoted especially to the sugar interest and progressive husbandry.

The National Agriculturist, and Pennsylvania Farm Journal formerly conducted separately, were combined on the 1st of January last, and will in future be known under one title, by uniting the two names. We wish the combination great success.

The Household, is a monthly paper published by Messrs. Milliken & Crowell, Brattleboro', Vt., and we take pleasure in pronouncing it one among the best of our exchanges.

Public Ledger.—We acknowledge the receipt of a copy of the *Public Ledger*, published by Geo. W. Childs, Esq., Philadelphia, containing an account of his "Fourth of July dinner to the newsboys," and an interesting account of the origin of the *London Times*.

"*College Courant*," Yale.—The weekly issue of this paper for July 1st is before us. It is handsomely gotten up, and although a specialty in the interest of Yale College, the editors promise that a glimpse, at least, at other colleges and institutions of learning shall be found in their pages. They report a list of talented contributors.

The Holmesburg Gazette comes to us this week in an entire new dress. As a rural paper, it is among the best printed that we have seen. Its advertising columns give evidence of liberal patronage, while its reading matter exhibits talent worthy of commendation. Published by William F. Knott, Holmesburg, Pa., at \$2 50 per annum. Send for a sample copy.

The Monthly Report of the Department of Agriculture for May and June has been received, and contains much interesting matter.

The Wisconsin State Agricultural Society has sent us a copy of their *Regulations and Premium List* for their annual exhibition to be held at Madison, Wis-

consin, commencing Monday, September 28th, and continuing five days. They offer \$10,000 in premiums.

The Indiana State Fair.—We are indebted to the kindness and courtesy of A. J. Holmes, Esq., Secretary of the Society, for a complimentary invitation to be present at their exhibition to be held at the State Fair Grounds, at Indianapolis, commencing Monday, September 28th, and continuing until Saturday, October 3d, 1868. It would give us great pleasure to attend on this occasion, did not our engagements prevent our doing so.

The New York State Agriculture Society have furnished us their *Regulations and Premium List* for their twenty-eighth Annual Fair, to be held at Rochester, N. Y., commencing September 29th, and continuing until October 2d.

Chemistry Applied to the Arts, is the title of a Lecture by Prof. J. W. Mallet, delivered before the University of Virginia May 30th, 1868, and for a copy of which we are indebted to the kindness of a friend. This Lecture is one of great interest and value, and we shall not be satisfied with simply acknowledging its reception, but promise at an early day to draw upon it for the benefit of our readers.

We gratefully acknowledge the reception of an invitation to dine with our friends, the members of the "Crow-hunt," at Spring Hill Church, Lunenburg county, Va., on August 1st. We regret our inability to attend and enjoy their good company, as well as the feast, but thank Wm. M. Bagby, Esq., and other members of the committee, for remembering us.

Hermitage Nurseries.—A Catalogue of this well known and valuable establishment is before us, and we commend it to our people as in every way worthy of their patronage.

A Catalogue of the *Due West Female College*, Abbeville, S. C., has been received.

Messrs. Darnell & Co., proprietors of the *Warm Springs, Bath county, Va.*, send us their circular, setting forth the value of the waters, and the other attractions of this well known resort.

Cresylic Soaps, &c.—We have received from our friend, Thomas Affleck, Esq., of Brenham, Texas, the Circular of Messrs. James Buckhan & Co., 190 Elizabeth street, New York, who are the agents for Cresylic Soaps and other compounds of known value as deodorizers and disinfectants.

Farmers' Gazette and Industrial Index, devoted to Agriculture, Mechanic Arts and Industrial Interests of the South. pp. 32 octavo. S. Bassett French, editor and proprietor. Office 1006 Main street, Richmond.

The initial number of this new competitor for public favor, which we noticed as forthcoming in our March number, was issued in advance of the 1st of July. Its contour is neat and imposing; its contents diversified and inviting. The August number has also been received.

We shall sit with docility and meekness at the feet of our contemporary, who shall be our Gamaliel, to teach us the superior art of simplifying simplicity, so that we may not only be able to "meet the wants of the farmer who has had the blessed privilege of *high education*," but also "to make the columns of the" *Southern Planter and Farmer* "available to the farmer and mechanic of the humblest attainments;" for we think we do not transcend the scope of our mission when we acknowledge ourself to be "debtor both to the wise and to the unwise."

A New Agricultural Journal.—Mr. Wm. H. Bernard, of Wilmington, N. C., has issued a Prospectus for the publication of an Agricultural monthly to be entitled the *North Carolina Farmer*. He possesses facilities and talent which must ensure success under his auspices.

Correspondence of Southern Planter and Farmer.

We have been furnished by the obliging Commissioner of Agriculture with the following intelligence in advance of the publication of his monthly report on the

CONDITION OF THE CROPS IN JULY.

The following is an abstract from "Condition of the Crops" in the Monthly Report of Agriculture for July:

CORN.—The most remarkable fact in connection with the corn crop of the present year is the great increase of its acreage in the South, the difference in number of acres between the present and the preceding year being more than two millions and a half. A slight decrease is apparent in the eastern seaboard States, resulting from the unpropitious character of the recent cold, wet and backward spring, which sadly interfered with planting. A careful estimate of the acreage shows a decrease of 49,609 acres in eight States, and an increase of 3,108,215 acres in the remaining States, as follows:

DECREASE.

	Acres.		Acres.
Maine.....	3,300	Connecticut.....	9,511
New Hampshire.....	3,184	New York.....	12,888
Massachusetts.....	1,985	New Jersey.....	8,818
Rhode Island.....	1,719	Maryland.....	8,204

INCREASE.

	Acres.		Acres.
Vermont.....	1,679	Tennessee.....	127,215
Pennsylvania.....	57,106	West Virginia.....	13,131
Delaware.....	6,697	Kentucky.....	27,307
Virginia.....	70,775	Missouri.....	407,942
North Carolina.....	216,927	Nebraska.....	16,145
South Carolina.....	89,764	Kansas.....	63,411
Georgia.....	255,987	Iowa.....	236,683
Florida.....	48,728	Minnesota.....	25,500
Alabama.....	43,827	Wisconsin.....	32,361
Mississippi.....	313,108	Michigan.....	48,146
Louisiana.....	397,291	Ohio.....	178,397
Texas.....	132,229	Indiana.....	100,626
Arkansas.....	376,772	Illinois.....	366,692

The figures show an increase of over 3,000,000 of acres in corn, making about 36,000,000 in the United States, an advance of nine per cent. The percentage of Louisiana reaches 65, that of Arkansas 47, that of Kansas 30, Mississippi 25, Nebraska 25, Missouri 22, Texas 18, Minnesota 17, Iowa 15, Illinois and Ohio 8, Indiana 4.

The drought in the South has retarded somewhat the growth of corn, but its condition in that section is generally good. In the West the average is high, with the exception of Ohio and Indiana, where the weather has been somewhat unpropitious, and storms destructive. In the East, on the last of June, the growth was small, but the hot weather of July had brought a large portion of the crop into splendid condition.

WHEAT.—The condition of wheat, as shown in the July returns, is above the average for last year in all the States except Vermont, Connecticut, the Carolinas, Georgia, Florida, Alabama, Mississippi, Texas and Nebraska. The season has been peculiarly favorable to the growth and ripening of this great bread crop in all except the Southern States.

The favorable reports are so numerous, in the Western States especially, that it is unnecessary to give them in detail. The general tenor of reports is that "winter wheat bids fair to be the largest crop we have had for many years;" "the yield will be immense;" "the prospect was never better for a large crop;" "the weather has been remarkably seasonable;" "the universal opinion is that the crop will be the largest ever grown in the country;" "crops all over the country were never in a more flourishing condition." Our Lafayette, Wisconsin, correspondent says he has never seen, in a residence of forty years, a finer prospect for wheat, as well as all other crops, and that the same might be said of several adjoining counties. In Highland county, Ohio, the acreage of winter wheat is estimated at three times that of last year, and in Monroe county, Missouri, the acreage of wheat is thought to be three-fold that of 1867. In Kalamazoo county, Michigan, an unusual yield is reported, the best fields being estimated at forty bushels per acre; and in Bourbon county, Kansas, it is claimed that many farmers will show a similar yield.

Exceptions to this showing are frequent in the South, where rust was more or less prevalent. Some loss from the same cause resulted in Maryland and in the similar latitudes in the West. In a few localities loss from lodging is reported. Unusual exemption from winter killing is manifest, reports of damage from freezing coming only from northern Vermont, some portions of the Ohio valley, and a still more southern belt. Very few accounts of destruction by the midge are received. In Lebanon county, Pennsylvania, this insect is charged with taking one-third of the crop. In Clinton, Indiana, some loss is also sustained from insects. In Queen Anne county, Maryland, the extreme heat shriveled the grain in ripening, leaving it light and poor.

In the Miami valley thousands of acres of wheat just ripening have been destroyed by floods, and other crops suffered from the same cause. Other sections of the State were visited by destructive rains at the same time, and much injury resulted to wheat, corn, and other crops. With a successful harvesting of the spring wheat it may safely be declared, in summing up the local reports, that a larger number of bushels of wheat, by many thousands, will be grown in the United States in 1868 than in any previous season.

COTTON.—Returns from the cotton districts indicate everywhere a reduction of the acreage in that crop with the exception of Texas, which shows an increase of 33 per cent. over last year, and Alabama, where there appears to be no material change in the figures. The falling off in Mississippi appears to be 18 per cent., 24 in Louisiana, 12 in Georgia, 13 in Arkansas, 18 in South Carolina, 20 in Tennessee, and 32 in North Carolina. The average reduction in acreage is about 10 per cent. With this diminished breadth there is cleaner and better culture and a more general use of fertilizers, so that the yield may be quite equal to last year, the season being equally favorable, with a like experience as to insects and other causes of injury. It is yet too early to predict the result, but the present status of the crop is fairly shown in this statement.

One county in Arkansas (Desha,) reports less than a third of the acreage of last year, while the area in corn is three times as large. Such indications are hopeful. The correspondent, as might be expected, declares that the crops are all in splendid condition, and if not injured by a drought the finest yield for many years will be the result. A want of rain has been apparent in the Gulf States, and a severe drought has afflicted western Tennessee, but few com-

plaints of its effects upon cotton are made. So far the plant enjoys a very general exemption from casualties and injuries.

Rye, oats and barley promise abundant crops; no serious drawbacks are reported, and few complaints of bad condition are received.

Potatoes, so exceptionally unproductive last year, are in unusually fine condition, and the average is increased in every State except Rhode Island—the natural result of extremely high prices of last year's crop.

Fruit is variable; apples and peaches less promising than usual. Vermont, New Jersey, Delaware, Maryland, Virginia, Arkansas, Missouri, Iowa, Illinois, Indiana, Kentucky, and West Virginia, make a worse record than other States as to apples. Peaches will be less abundant than apples; New Jersey, Maryland and Delaware promising but half a crop, and Illinois and Michigan showing a considerable reduction. A fair promise of grapes is indicated.

Tobacco covers as large an area as usual in Virginia, Kentucky, and Connecticut; somewhat less in Indiana, Illinois and Missouri. Its condition is good in Kentucky and Michigan; elsewhere a little below an average.

Sorghum is generally doing well in the West; not so well as usual in the middle belt of southern States.

We extract the following interesting paragraphs from a private letter:

* * * "Last week I was on the State Agricultural Farm at Ashland—Mr. Clay's place at Lexington. It so far transcends anything I ever saw for such an enterprise, that it seems to me success would crown any well-directed effort. Ashland is too rich, too grand a farm to be used for teaching agriculture. There no manures are made—none are needed; no ditches dug, nor tiles made nor laid—none are needed. And there, too, what most farmers need to know cannot be learned, especially the youths who are to resuscitate the South.

"I went also to Warfield's farms. There I saw the noblest cattle ever bred—a two-year old heifer larger than any cow I ever saw. The owner refused \$1,400 for her, *cash*. I saw a calf five months old, altogether inferior to others in his stalls, which, for the sake of a change, he had bought of a neighbor for \$600. And so on, and so on. No wonder stock-raisers are rich. Cotton and tobacco are slow coaches in comparison!" "Very sincerely,

Louisville, Kentucky, July 24, 1868.

We present the following extract from a letter of an esteemed correspondent at Harris's station, N. & D. R. R., Ala., under date of the 9th of July, in relation to the crops in that region:

* * * "Upon the subject of crop prospects in this neighborhood I can perhaps enlighten you. Of wheat first. That is all saved, and a good proportion threshed. I think five bushels per acre a liberal estimate. I know of several crops that fall as low as three bushels, and of no one that goes as high as six bushels per acre. With us, the usual way of planting wheat is about this: wait till the cotton crop is gathered, say about 1st December, then sow down wheat upon the unbroken surface, plough it in with bull tongues, and let the cattle graze and trample it during winter. This mode of putting in late, and cold spring late rains causing rust, and storms beating off the blooms, account for this small yield. To show that the country will bring wheat, on two acres

better prepared and sowed, I gathered thirty bushels of *prime* wheat; but the balance, some twenty acres, only yielded four bushels 15-60ths per acre. Our cotton and corn are both suffering from long-continued dryness. Rain fell on the 16th May, and the next was during this present week—on me to-day, but partial rains have been in sight every day this week. To what extent the damage to those crops may reach it is too early now to tell, cotton especially depending greatly upon the date of the first killing frost.

"No crops are cultivated in this section other than corn and cotton. Every body plants a little wheat for family use, and that is all. This year a few persons have tried experiments with broom corn, ground peas, castor bean, &c., &c., but I cannot say with what prospect of success. Many announce their determination to sow wheat more largely the coming fall, and I think I will do so. Now if you would publish a practical treatise upon wheat growing, I think it would be useful to a good number of neophites like ourself, and might add to your circulation. In such a treatise, however, take nothing for granted. Like Mrs. Glass's receipt for cooking a hare, begin with the catching. Tell when and how to fallow, or otherwise prepare the lands, how and when to sow, what drill, if any, &c., &c.—"ab ovo usque ad mala"—for we know nothing.

"Wishing that I were worthy of a place on your list of regular contributors, and to you and your co laborers God-speed in your efforts, I am, my dear sir,

"Very truly your friend,

JAMES BENAGH."

Mr. Editor,—I cannot longer defer the inclination to express to you the pleasure I have in perusing the *Planter*. I do not wish to make an invidious comparison, when I say it is the *best* paper of the kind we have had in Virginia, in my estimation. I commend the authors of such articles as *friend* Ruffin on sheep husbandry, Mr. Mott and others, for doing good service to the cause of agriculture in our present crippled condition. The private correspondence or editorial department is an exceedingly interesting feature in the *Planter*. If more of the sterling and respected agriculturists of the State and the South, such as my venerable friends Willoughby Newton, Esq., Dr. Atkinson and Dr. Preston, will keep up a correspondence with you, it will add *much* to the interest of the *Planter*. 'Tis not their views especially about farming, but an expression of opinion on other subjects deeply interesting to us in our anomalous condition, to which I refer. A remark made by Mr. Newton, in his communication of the 17th June, no doubt met a response in the bosom of every *right-thinking* man in the South: "Let the people cease to harass and worry each other with petty litigation—with motions for interest, *the costs of which often exceed the sums recovered*—let them avoid the folly of mariners in a shipwreck, who fight over the straws and drown each other in contending for the last plank."

How well would it have been had our Legislature acted upon this idea, and closed by sensible legislation the *flood gates of litigation*, instead of opening them as they did, and encouraged to a course which is rapidly bankrupting the Commonwealth. I have been struck with the strong common sense of one of the judges of the State, who remarked of the action of this Legislature, "that had they imposed a writ-tax of five hundred dollars upon any one instituting a suit until we are again entitled to all our rights," it would have been eminently proper. Our courts ought to have been closed, in his estimation, except for probate and some other purposes.

To back cover of the issue

In regard to crop prospects, much is said by the press of the country calculated to *mislead*, and affect prices injudiciously. I am satisfied, from all the information I am able to gather of the wheat crop in Virginia, that it will be far smaller in quantity than was generally hoped in June. In Augusta and Rockbridge the wheat comes near an ordinary crop—better in the last named than in this county. Rockingham will have little, if any surplus. One of the best farmers on Linville creek sowed 200 bushels, and at the commencement of harvest was willing to compromise for his seed. The promise of corn now is pretty good through this part of the Valley. The oat crop is an average one, but much of it will be injured by wet weather.

The grape is infested with a new enemy this year, in a small light green-caterpillar, that collects around the edge of the leaf in rows, and grow in a few days from a size as small as a gnat to an inch or more in length. They are torpid and sluggish, but increase rapidly. The vine disappears before you are conscious of their presence. I sent some specimens to the Agricultural Bureau at Washington, but have not heard from them. This season has been a good one for a stand of grass. The hay crop is unusually heavy.

Fears were entertained about a scarcity of hands in harvest, but I have never known one to be taken off with less complaint on this score. The negroes behaved well generally.

Yours truly,

J. M. McCUE.

Mt. Solon, Va., July 28, 1868.

Agricultural Exhibitions.

We are obliged to defer, for want of space, a notice we had intended to give in this number, of the several Agricultural Exhibitions proposed to be held during the coming autumn. They will be noticed in our September number. Meanwhile, we would mention: The Border Agricultural Society will hold its second Annual Fair at Danville, commencing on the 20th of October next. The Augusta County Fair will be held at the grounds of the Society near Staunton, to commence on Tuesday, the 27th of October. The Central Agricultural Society of North Carolina will hold its tenth Annual Fair at Henderson, on the 14th, 15th and 17th of October.

COMMERCIAL REPORT.—Owing to the large amount of original matter contributed by our friends in the last and present months, our Commercial Report is not so full as we will endeavor to have it in future. From the difficulty we experience in getting statistics of the inspections of Tobacco from the different points of this State in time for publication the following month, we have determined to publish the inspections of each month in our Commercial Report the second month following; and therefore, give inspections for the month of June, and also from September 30th, 1867, to that date, as follows:

	June Inspec's.	Insp. since Sep. 30, 1867.	STOCK ON HAND. For Ins. Insp'd.
Richmond,	5,560	19,397	1,437 5,449
Petersburg,	1,577	7,448	451 1,511
Farmville,	74	235	58
Lynchburg,	1,449	4,359	217 351
Total hhds.,	8,660	31,439	2,163 7,311

Inspections in Richmond between 30th September, 1867, and 1st July, 1868, 19,397 hhds., against 14,395 hhds. to same date last year. Inspections during month of June, 5,560 hhds., against 5,318 hhds. during same month last year.